

NAVAL POSTGRADUATE SCHOOL

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UTILIZATION OF WOMEN IN THE NAVY:
A STUDY OF HISTORIC AND CURRENT
EMPLOYMENT PRACTICES

by

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Utilization of Women in the Navy:
A Study of Historic and Current Employment Practices

by

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Lieutenant Commander, United States Navy
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Submitted in partial fulfillment of the
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ABSTRACT

With the advent of the All-Volunteer Force, utilization of women in the Navy has significantly increased. Women may well become even more valuable manpower assets given projected shortages in recruitable males, more equitable management policies, and changing societal attitudes.

A review of past Navy employment practices for females, discussion of current utilization, and considerations are made. *Female petty officers retention problems and the reluctance of females to enter the more traditional male Navy ratings are causes for concern. The "combat" assignment issue is analyzed. This writer concludes that more selective female recruiting practices, a long term evaluation of the Women in Ships program, and a study of low female enlisted retention rates are needed. Studies of women's capability to satisfactorily integrate into combat environments are also essential. Only after these steps are accomplished can Navy planners accurately assess the effectiveness of females and possible limits on their utilization in the Navy.*

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I. INTRODUCTION

Our baseball team never did very much
we had me and PeeWee and Earl and Dutch
And the Oak Street Tigers always got beat
until the new kid moved in on our street.

The kid moved in with a mitt and a bat
and an official New York Yankee hat.
The new kid plays shortstop or second base
and can outrun us in any race.

The kid never muffs a grounder or a fly
no matter how hard it's hit or how high
And the new kid always acts quite polite,
never yelling or spitting or starting a fight.

We were playing the league champs just last week;
they were trying to break our winning streak.
In the last inning the score was one-one,
when the new kid swung and hit a home run.

A few of the kids and their parents say
they don't believe that the new kid should play.
But she's as good as me, Dutch, PeeWee or Earl,
so we don't care that the new kid's a girl.

[Makley, 1975, p. 73]

During the 1970's the All-Volunteer Force (AVF) became a reality. The central and continuing debate surrounding the AVF has been the question of whether enough men could be recruited to sustain military personnel requirements. Consideration of demographic data, indicating declining numbers of eligible-to-serve males through 1990, resulted in new policies emphasizing the utilization of women as a military manpower source.

The 1970's also marked the advent of the revitalization of the women's liberation movement. The leadership of this politically motivated action group objected to, and helped change, society's view of traditional sex-role patterns. The movement opposed the concept that man alone was free to make choices about the direction of his life. Women in greater numbers demanded that they too be given the same choices for control of direction in their lives. Shanahan [1972, p. 72] describes the results of the ensuing social change in the following:

We have always admired her, pursued her, whistled at her, even enshrined her, now we need to use her, not just for the jobs men don't want to do, not grudgingly because we want to shut her up, not slyly because we think she's cute, but thankfully because she has brains, that are needed in our struggle for survival.

Resultantly, the 1970's were a period of policy change concerning women's roles and their utilization, both in the military and society in general. In the past, utilization of additional women was considered only as a last resort--after all efforts to draft or recruit from the male population were exhausted. This consideration changed significantly during the 1970's. In the Navy, the consideration of the utilization of women as sailors is a continued realization of both personnel shortages and the changing role of women in our society.

This thesis reviews the history, policies, laws and performance factors relating to the increased utilization of

women. Additionally, the thesis addresses the issue of utilization of women in combat roles and presents comments and conclusions concerning future Navy employment of women.

II. HISTORICAL OVERVIEW OF THE ROLE OF WOMEN IN THE NAVY

The general theme of the Navy's utilization of women during this century has been to call females to duty during times of crisis and to disestablish female job functions when the crisis subsides. Since the turn of the century, the first female involvement in the Navy was in 1908 with the establishment of the Navy Nurse Corps. During World War I the Nurse Corps provided medical assistance in the continental United States. Additionally, in 1913, Navy nurses were assigned medical duties aboard two transport vessels, USS MAYFLOWER and USS DOLPHIN [ALL HANDS, 1978, p. 10].

During WW I the question of enlisting women for clerical tasks arose. Secretary of the Navy Josephus Daniels requested a ruling on the legality of enlisting females and was told that the Naval Reserve Act of 1916 referred solely to the enlistment of citizens, and consequently did not exclude females. Daniels used this interpretation, in March 1917, to accept the first women into the regular Navy. These women, approximately 13,000 in number by the end of the war, were used as yeomen (F), or yeomanettes as they were popularly called, to free men from administrative duties [Thomas, 1978, p. 303]. Interestingly, a law in effect at that time required all yeomen personnel to be assigned to ships. The Navy circumvented this restriction by assigning all yeomen (F) to

a boat sunk in the mud of the Potomac River [Hunter and Million, 1977, p. 52].

The issue of female involvement in the Navy terminated with the end of the war. A 1918 memo the the Navy Chief of Staff closed the question by stating [Treadwell, 1954, p. 654]:

In view of the present military situation it is believed no longer desirable that arrangements be made to form military organizations composed of women. . . A continuation of the war would have required the United States, in completing its program for the year 1919, to make a much more extended use of women. . . to replace men sent overseas or men shifted to heavy work which men alone can do.

After the signing of the Armistice in 1919, the process of discharging these women commenced and by 1922 the last woman had returned to civilian status.

The issue of women in the Navy was frequently discussed between the World Wars but no action on their behalf was taken. However, as participation in WW II began to appear inevitable, pressure increased to use women in the Navy.

World War II generated the emergency which forced policy-makers and legislators to cast aside preconceived notions in favor of pragmatism.

In early 1942, the Secretary of the Navy proposed legislation to amend the Naval Reserve Act of 1938 to include utilization of women in time of war. After some debate as to whether the women should be considered as an auxiliary force or given full military status, the Women accepted for Voluntary Emergency Service (WAVES) was created. Public Law

689 was signed 30 July 1942 and the WAVES were given full military status. At the same time, legislation was enacted to authorize enlistment and commissioning of women in the U.S. Naval Reserve. The WAVES were not permitted to serve outside the continental United States until late in 1944, but served in every type of stateside billet. By 1945, the WAVES represented over 55 percent of the uniformed Navy in Washington, D.C. [Thomas, 1978b, p. 304]. By the completion of WW II there were approximately 86,000 females in the Navy. However, similarly to the events ending WW I, the majority of the women were discharged or released to inactive duty during the 1946-1947 timeframe.

The incorporation of women into the services during World War II was intended strictly to fill a wartime need. The wartime emergency measure to utilize women was legitimized in 1948 when President Truman signed the Women's Armed Services Integration Act (Public Law 625). With this law, the designation, WAVES, became obsolete and women were authorized into the regular Army, Navy, Air Force, and Marine Corps. Despite this advance, the law provided legal sanction to inequities between the sexes, including the following [Hunter and Million, 1977, p. 52]:

1. Women officers could not have permanent commissions above the rank of Commander.
2. Women could not exceed 2 percent of total regular

military enlisted strength, and female officers were not to exceed 10 percent of the female enlisted strength.

3. Women were required to be older than men to enlist (18 as compared to 17) and had to have written parental consent if under 21 (as compared to 18 for men).
4. Children of military women would not be considered dependents unless their father was dead or their mother was their principal source of support.

At the same time Public Law 6015 (Title 10, U.S. Code, Section 6015) was enacted. This law, which today in modified version still significantly effects the women sailors of the 1980's, prohibited women from being assigned to duty in aircraft engaged in combat missions or to duty in vessels of the Navy other than hospital ships and transports [Hoover, 1977, p. 118].

Due to the restrictive nature of Public Law 625, the utilization of women in the Navy following WW II decreased significantly. During the 1950's the percentage of women in the Navy was between .7 and 1.5 percent. This utilization rate continued during the 1960's. Primarily, as a consequence of the rapid escalation of the Vietnam War, a Department of Defense task force was directed, in early 1967, to reassess the role of women in the armed forces. Resultingly, Public Law 90-130 was passed and had the following ramifications [Unrestricted Line Women Officer Professional Development Report, 1980, p. Tab I.A.]:

1. It eliminated the 2 percent ceiling on female enlisted members and the corresponding officer restriction.
2. It largely equalized promotion flow and opportunity of women to the grade of Captain.
3. It enabled appointment, but not selection, of women as flag officers.

With the passage of Public Law 90-130 the individual Service Secretaries became responsible for determining suitable female quotas. Throughout the late 1960's the Navy operated the active force with between 4,000 and 5,000 females authorized for duty.

Since 1972 the status of women in the Navy has significantly changed. Most of this change has resulted from social and political influences which will be discussed in the following chapter.

III. CHANGE AND PROGRESS FOR WOMEN IN THE 1970'S

Within the total Navy force, women have assumed an increasingly significant role throughout the decade of the 1970's. This exigency derived from, first, the coincidence of the All Volunteer Force (AVF) and a diminishing national resource pool of service-eligible and service-interested young men [America's Volunteers, 1978, p. 1-15]. The movement to the AVF required the military services to intensify their search for personnel and, consequently, women became a very visible potential source of labor. Second, the changing character of the military establishment, with increased emphasis on technology and deterrence, lessened the dependence on physical aspects of combat [Feld, 1978, p. 558-564]. The Navy's significant emphasis on technology, administration, logistics, etc., reduced previously traditionally socially inappropriate roles in a direction favorable toward women. Third, external social change in the United States and the conscious effort of the military to recognize and incorporate such change impacted on women. Equity and equal opportunity for women became a foremost issue of importance and expanded utilization and career enhancement of female personnel, whenever practicable within the constraints of law, resulted.

The proposed Equal Rights Amendment (ERA) and the women's liberation movement have directly and indirectly hastened the process of integrating women into the Navy environment.

ERA marks the culmination of women's pursuit of equal rights in this country. In the ratification process for several years and close to passage for the past two years, ERA would legislate parity for women in the military and throughout American society. According to legal interpretations of the ERA reported in the Yale Law Journal [1971, p. 667-680], the effects on the military include the following:

1. Women will serve in all types of units, and they will be eligible for combat duty.
2. Such obvious differential treatment as exemption from the draft and more restrictive standards for enlistment will have to be brought into conformity with the Amendment's basic prohibition of sex discrimination.
3. A woman will register for the draft at the age of eighteen, as a man now does.
4. Under the Equal Rights Amendment, all standards applied (intelligence tests and physical examinations) will have to be sex neutral.
5. Women are physically as able as men to perform many jobs classified as combat duty, such as piloting an airplane or engaging in naval operation. . . there is no reason to prevent women from doing these jobs in combat zones.

Additionally, American society has dramatically changed due to the impact of the women's liberation movement, regardless of whether ERA is ever ratified. It has noticeably

impacted on how American view family, job, and equality of men and women. With the advent of the activist women's movement, the traditional roles of both men and women in society were changed. Women became dissatisfied with restrictions which barred them from certain jobs and some important men supported their viewpoint. Admiral E. R. Zumwalt, Chief of Naval Operations in 1972, summed up the thoughts of many with these words [Commander's Digest, 1973, p. 7]:

When you really stop to think about the state to which our society has developed, there is no reason in theory, sociology, or equity why women should not have every opportunity that men have. I believe any man or woman should be permitted to serve his country in any capacity that he or she, as an individual, views as appropriate.

As a consequence of the varied political and social realities of the early 1970's, the Navy began formulating an integrated approach to total force planning, programming and utilization, in pursuit of maximum integration of all personnel assets in order to achieve maximum benefit from the talent pool available.

A. REVIEW OF POLICIES AND INCREASED UTILIZATION OF WOMEN

Opportunities for women in the Navy have expanded significantly in the 1970's. Sweeping change started in August of 1972 when Admiral Zumwalt promulgated Z-Gram 116, which included [Thomas, 1978b, p. 306]:

1. Authorized limited entry of women into all Navy enlisted ratings.

2. Established a pilot program aboard USS SANCTUARY (AH-17), a hospital ship, for evaluating use of women at sea and immediately assigned a limited number of female officers and enlisted personnel to the crew.
3. Suspended restrictions on women succeeding to command ashore.
4. Opened the Chaplain and Civil Engineering Corps to women officers.
5. Opened college NROTC programs to women and expanded the opportunities of women line officers.
6. Permitted women to achieve flag rank within the managerial and technical spectrum.

Due to the implementation of Z-Gram 116, the Navy reassessed the numbers of women it could utilize and determined that the force could increase from approximately 5,000 females to 20,000 females. This was determined to be the ceiling since Title 10, U.S. Code, Section 6015 continued to prohibit females on aircraft or ships other than hospital ships or transports [Hoover, 1977, p. 118]. This legal restriction, essentially preventing women from serving at sea, was the limiting factor on the calculation of the ceiling. The Navy, in the past and presently, determines the female ceiling based on the desire to maintain an equitable assignment balance between sea duty and shore duty. Due to the sea duty restrictions imposed on females, their subsequent over-assignment to shore duty assignments would disrupt the orderly rotation of

men between sea and shore and result in longer sea duty tours, creating several morale related problems in the process.

The assignment of women to USS SANCTUARY was the first step in Admiral Zumwalt's plans for expanding the roles of women at sea [Castle and Lewonowski, 1973, p. 4]. Resultingly, SANCTUARY was the first Navy ship to have women personnel at sea serving in non-medical positions. As Admiral Zumwalt [1972] stated, "The ultimate goal, assignment of women to ships, will be timed to coincide with full implementation of pending legislation." This was in reference to anticipated quick ratification of ERA. Out of a total ship complement of 550, 60 women reported aboard in 1972, 35 as ship's company and 25 as medical personnel.

In 1973 there were additional stimuli toward female integration of the force. Despite the closing of 15 of the Navy's ratings (there approximately 102 in total) opened by Z-Gram 116 due to their sea-going environment, new opportunities for women developed. The Secretary of the Navy requested that the Navy's Judge Advocate General (the Navy's legal counsel) render a legal interpretation of Title 10 USC 6015, regarding the assignment policy of women to sea-going combatant ships and aircraft. The Judge Advocate General concluded that the law prohibited women from assignment to vessels which go to sea (exclusive of hospital ships and transports). However, in the opinion, the Judge Advocate General concluded that the phrase "go to sea" did not include the operation of small craft

attached to and serving in support of Navy shore installations which do not deploy to the high seas for extended periods [Kane, 1978, p. 4]. Consequently, assignment to service craft attached to naval installations was authorized for women in early 1973.

Secretary of the Navy John Warner also concluded that women could join the aviation community, as long as they were restricted from combat or combat related service, and in early 1973 the selection of eight female student aviators was announced. Six of the eight women ultimately became designated as Naval Aviators [Gates, 1978, p.32]. The program was evaluated for two years and determined successful. Consequently, this program has continued but has remained limited in scope due to the combat restrictions. By 1978, the Chief of Naval Operations had approved an annual goal of 15 women to be accepted into the flight training program.

Another significant 1973 milestone was the disestablishment of PERS K. PERS K had coordinated assignment and screening policies strictly for women, separated from the male sailor assignments and screening policy process [Unrestricted Line Women Officer Professional Development Report, 1980, p. Tab I.A.]. With this action, separate management policy development for women, which had prevailed since 1942, was largely eliminated.

Deciding not to await the outcome of ERA, Admiral Zumwalt recommended that 10 U.S. Code, Section 6015 be repealed so

that equality of opportunity for women of the Navy might be more fully realized and so that the Navy would be provided with authority to more effectively manage personnel without statutory limitations based solely on sex. The Navy, at this time, had over 270,000 sea billets which were restricted only by Section 6015. Zumwalt's proposal was rejected by Secretary of the Navy Warner. Similarly, in 1976 Admiral Holloway made the same recommendation but it was again rejected, this time by the then Secretary of the Navy, J. William Middendorf [Hoover, 1977, p. 119].

Despite these setbacks for expanded opportunity, several laws were amended to improve equality for women. In 1974, Public Law 93-290 amended portions of the Women's Armed Services Integration Act. This law corrected the inequities of age requirements imposed on female enlistees and made them the same as for men [Women in the Navy Information Book, 1979, p. 9].

Another improvement, lowering attrition and enhancing retention of female personnel, was a change to the regulations effecting pregnant service members. Navy women who became pregnant while on active duty were no longer automatically discharged. They now had the option of remaining on active duty or being voluntarily discharged.

Entry to the Naval Academy became an opportunity for women in 1976. The issue of women at the Naval Academy first developed in September 1973 when a California woman and two

California Congressmen brought suit against the Naval Academy for admittance. Judge Gasch of the U.S. District Court in the District of Columbia ruled against the plaintiff's request, but the issue was not resolved [Clark, 1977, p. 66]. In 1974 and 1975 the subject of women at the service academies was a heated topic. In April 1975, an Amendment was introduced into the 94th Congress as HR 5718 to allow women into the service academies. The Stratton Amendment, as it was called, to Title 10 U.S. Code was passed by both the House and Senate and signed by the President as Public Law 94-106 on October 8, 1975. The law directed that women be admitted to the three service academies (The Coast Guard Academy, although not included, also complied) with the class of 1980 entering July 1976. The amendment did not authorize a different career development program for females. It limited changes to those required by the physiological differences between men and women and left the physical standards for admission and the numbers to be admitted to the discretion of the Secretary of Defense [Clark, 1977, p. 66-68]. The Navy, since the passage of Public Law 94-106, has strived to have women account for approximately 10 percent of each entering Naval Academy class.

During the 1976 through 1979 period, the trend toward increased opportunity and utilization of females continued, with civil suits helping influence the transition. Among the

changes were increased opportunities for women officers. For the first time, they were allowed to enter all restricted line communities via initial commissioning programs or via lateral transfers [Women in the Navy Information Book, 1979, p. 10].

In early 1977, W. Graham Clayton became Secretary of the Navy. Unlike the previous two Secretaries, he disapproved of 10 U.S. Code Section 6015 in its current form, and he wanted it modified to provide increased personnel management flexibility within the Navy. Modification of 6015 became one of his highest priorities and he directed the Navy to develop revision proposals. Navy/Clayton legislation drafted in 1977 proposed modification to Section 6015 by insertion of additional wording in the Law to give the Secretary of the Navy the authority to assign women not only to hospital ships and transports but to "vessels of a similar classification" not expected to be assigned to combat missions [Harris, 1979, p. 84].

While the Navy was drafting the proposed revision, six Navy female officers filed suit in the U.S District Court in the District of Columbia challenging the constitutionality of Title 10 U.S. Code Section 6015. During John Sirica's deliberations in this discrimination case, Congress had reviewed and approved the Navy/Clayton modifications and included the modified law as part of the Fiscal Year 1979 Authorizatwon Bill [Harris, 1979, p. 84]. Judge Sirica ruled on 27 July 1978 that the 1948 statute limiting the assignment of women to only

hospital ships and transports was unconstitutional because it created an absolute barrier in the exercise of discretion by Navy authorities to assign female personnel to noncombatant duties for which they are or can be qualified [America's Volunteers, 1978, p. 301].

Judge Sirica went on to make several pertinent points in this Owens v Brown ruling. Among them are the following [America's Volunteers, 1978, p. 301-302]:

1. The Navy could not rely on section 6015 as the sole basis for excluding women from shipboard assignments.
2. The judge noted that the statute restricted the range of duty assignments available to female members of the Navy, with adverse consequences both in service and in civilian life.
3. He noted that the case did not involve an issue of whether the Navy should be fully integrated or whether women should have an equal opportunity to receive assignments as combatants aboard Navy ships.
4. He felt that the question presented was the reasonableness of a statutory bar that draws no distinctions based on considerations of military effectiveness among any of the various assignments available to Navy personnel on ships.
5. In the opinion, the judge commented positively on the Navy/Clayton proposed legislation to remove the absolute restrictions of Section 6015.

6. He stated that Congress acted in an arbitrary manner and without regard for military effectiveness when they passed Title 10 U.S. Code Section 6015 in 1948.

Although he ruled against the absolute barriers of assigning women to ships (excluding hospital ships and transports), Judge Sirica made it clear that he did not intend to circumscribe the Navy's ability to use assignment policies based on military needs [America's Volunteers, 1978, p. 303]:

Nothing in this decision is meant to shape the contours of Navy policy concerning the utilization of female personnel. . . . There remain many unanswered questions about the effects of full sexual integration that may well convince military authorities that women members should be excluded from shipboard combat assignments, or even from permanent assignment to some noncombat positions, or for that matter, from all shipboard duties until such time as the vessels are properly equipped and crew members properly trained to accommodate their female counterparts. Those are essentially military decisions that are entrusted to executive authorities and the court expresses no view whatever on what their outcome should be. But what the court is requiring is that executive authorities move forward in measured steps to approach these issues free from the absolute bar erected by Section 6015.

The judge did not require the Navy to assign female personnel immediately to its noncombatant ships. Pleased with the Navy/Clayton proposal, he left that matter up to the Secretary of the Navy, with the provision that individual ability, and not sex, must be the factor on which assignment is made [America's Volunteers, 1978, p. 301-303].

The Navy formulated policy changes while awaiting Presidential approval of the 1979 defense authorization bill. The Fiscal Year 1979 Authorization Bill, delayed due to controversy

over inclusion of a Nimitz class nuclear carrier, was signed by the President on 20 October 1978 [Harris, 1979, p. 84]. As a result, the Navy announced a newly formulated program, known as the Women In Ships program, that would allow permanent assignment of Navy women to specified noncombatant ships and temporary additional duty assignment to any seagoing ship for periods up to 180 days provided a combat mission is not foreseen for the period of the assessment [SECNAVINST 1300.12, 18 April 1979].

In addition to the Women In Ships program, several additional opportunities developed for females in 1979, including the following [Hazard, 1980b]:

1. Opening the Naval Flight Officer community to women.
2. Validating career development paths for women officers in all Unrestricted Line Communities.
3. Opening four nuclear ratings to enlisted women.
4. Opening Limited Duty Officer programs to enlisted women effective Fiscal Year 1980.
5. Increasing utilization of enlisted women in non-traditional skills (21 percent of the inventory in 1979, projected to increase to 33 percent in 1985).
6. Amending U.S. Navy Regulations, removing restrictions on women's eligibility for assignment to command of major shore activities (i.e., bases, districts, stations).

B. WOMEN IN SHIPS PROGRAM

Due to modifications to Title 10 USC 6015, the Navy was able to open to women two officer communities (Surface Warfare and Special Operations) and five enlisted ratings (Opticalman, Patternmaker, Molder, Instrumentman, and Precision Instrument Man) previously excluded to women [Hazard, 1980b]. Additionally, the program is scheduled to expand the utilization of women onboard ships to include approximately 160 officers and 5,000 enlisted women serving onboard ships by Fiscal Year (FY) 85.

Within the first year of the modification to Section 6015, 53 women officers were assigned to 13 ships and 300 female enlisted were assigned to 5 ships; 60 more enlisted reported two months later. These data are summarized in Table 1. These actual assignments matched very closely the projected first year plans which included 53 female officers and 396 enlisted assigned to ships during FY 89 [Hazard, 1980a].

Fiscal Year 80 plans include the addition of between 58 and 60 female officers and 376 female enlisted to the Women in Ships program. Table 2 displays the additional commands programmed for assignment of women. Figure 1 delineates the overall assignment planning schedule for the Women in Ships program. The limit on the numbers of women is primarily constrained due to flow patterns and assimilation. Since there is very little lateral entry to the Navy by either men or women, balanced forces require that growth in numbers of women be spread over a span of years.

TABLE 1
FY 79 MANNING PLAN

	Officer Reporting <u>Date</u>	Plan No.	On Board End <u>FY 79</u>	Enlisted Reporting <u>Date</u>	Plan No.	On Board End FY 79 <u>1 Sep 79</u>
USS VULCAN (AR-5)	NOV 78	4	4	DEC 78	62	54
USS L.Y. SPEAR (AS-36)	NOV 78	4	4	MAR 79	102	94
USS NORTON SOUND (AVM 1)	NOV 78	4	4	JUL 79	70	72
USS PUGET SOUND (AD-38)	NOV 78	4	4	--	--	--
USS DIXON (AS-37)	NOV 78	4	4	--	--	--
USS SAMUEL GOMPERS (AD-37)	NOV 78	4	4	MAY 79	102	90
USS HECTOR (AR-7)	JUN 79	4	4	--	--	--
USS PIEDMONT (AD-17)	JUN 79	4	4	--	--	--
USS JASON (AR-8)	JUN 79	4	4	--	--	--
USS YOSEMITE (AD-19)	JUL 79	4	4	--	--	--
USS HOLLAND (AS-32)	AUG 79	4	4	--	--	--
USS PROTEUS (AS-19)	AUG 79	4	2	--	--	--
USS POINT LOMA (AGDS-2)	AUG 79	4	4	SEP 79	60*	--
USS SIMON LAKE (AS-33)	AUG 79	4	3	--	--	--
		<u>56</u>	<u>53</u>		<u>396</u>	<u>380</u>

*Sixty enlisted, while assigned to USS POINT LOMA (AGDS-2) by the end of FY 79, did not report aboard until November 1979.

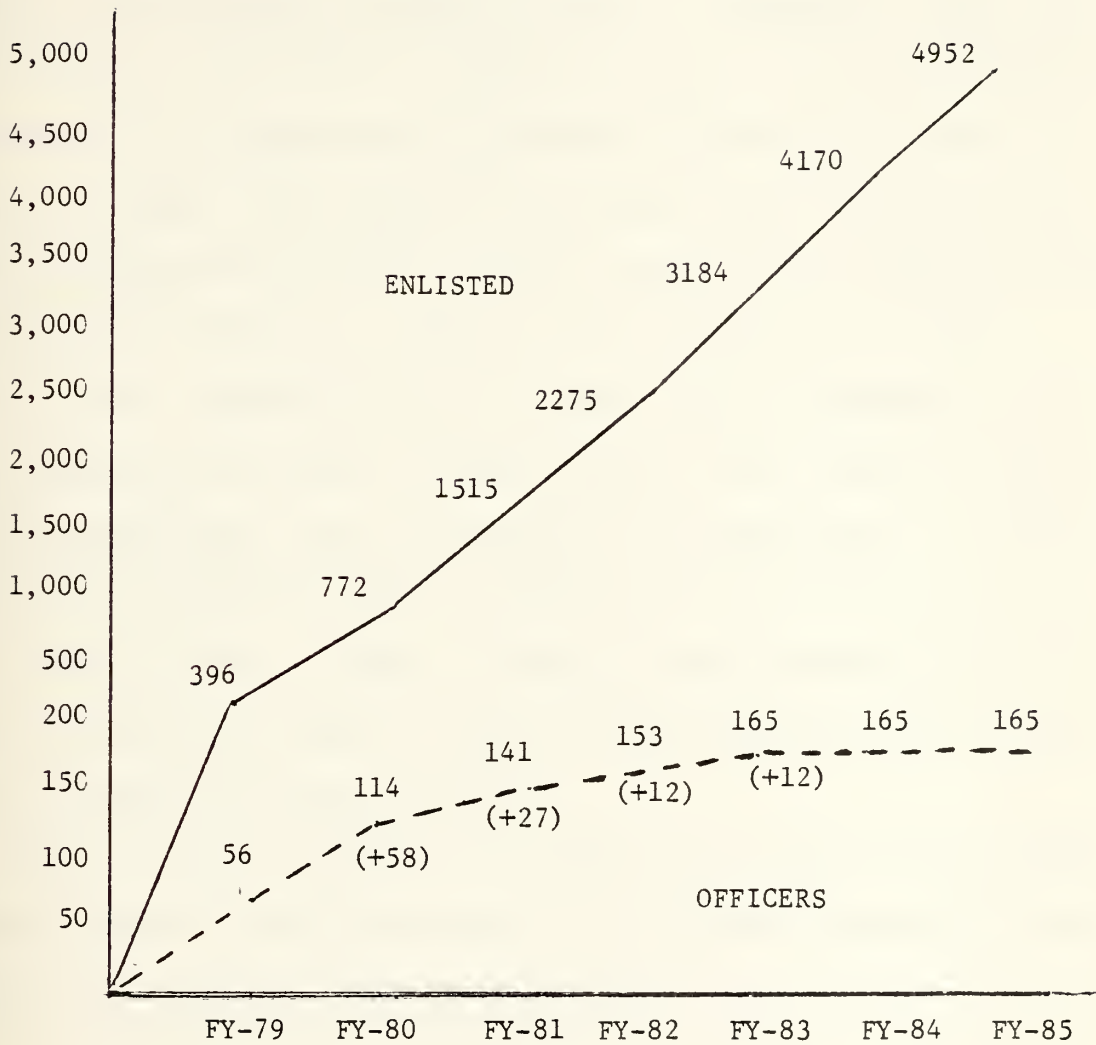
SOURCE: Hazard, Women in the Navy, 1980.

TABLE 2
FY 80 MANNING PLAN

	<u>Officer Reporting Date</u>	<u>No.</u>	<u>Enlisted Reporting Date</u>	<u>No.</u>
USS CANOPUS (AS 34)	NOV 79	4	MAR 80	60
USS F. CABLE (AS 40)	NOV 79	4	--	--
USS YELLOWSTONE (AD 41)	NOV 79	5	--	--
USS DIXIE (AD 41)	NOV 79	4	--	--
USS DIXON (AS 37)	(FY 79)		NOV 79	46
USS LEXINGTON (AVT 16)	DEC 79	8	JUL/AUG 80	150
USS JASON (AR 8)	(FY 79)		JAN 80	60
USS PRAIRIE (AD 15)	JAN 80	4	--	--
USS SIERRA (AD 18)	JAN 80	4	--	--
USS AJAX (AR 6)	JAN 80	4	--	--
USS CHAUVENET (TAGS 29)	MAR 80	2	--	--
USS HUNLEY (AS 31)	APR 80	4	--	--
USS SIMON LAKE (AS 33)	(FY 79)		MAY 80	60
USS FULTON (AS 11)	MAY 80	4	--	--
USS E.S. LAND (AS 39)	JUN 80	4	--	--
USS ORION (AS 18)	JUN 80	4	--	--
USS ARCADIA (AD 42)	JUL 80	4	--	--
USS L.Y. SPEAR (AS 36)	FEB 80	1	--	--
		<u>60</u>		<u>376</u>

SOURCE: Hazzard, Women in the Navy, 1980.

FIGURE 1
WOMEN IN SHIPS PROGRAM PROJECTIONS



SOURCE: Hazard, Women in the Navy, 1980.

A major result of the Women in Ships program is the increased numbers of women that can be effectively employed in the Navy. With approximately 5,000 women projected for sea duty by 1985, the sea duty requirements for men will be reduced, allowing more females to enter the Navy, while maintaining the existing sea-shore rotation standards. With the initiation of the Women in Ships program, the Navy extensively studied its capability to utilize and provide upward mobility to women. The Service concluded that the Navy could effectively employ 45,000 enlisted women without detrimentally effecting a policy of 3 years at sea followed by 3 years ashore (3/3) rotation policy for men. This assessment also concluded that a force of approximately 5,000 female officers could be employed. As a consequence of improved utilization, women will comprise nearly 10 percent of the Navy's active-duty force by 1985. Table 3 displays the accession plan for women officers and Table 4 demonstrates the planned utilization of female enlisted sailors.

Chapter IV will assess and review the effects of the Navy policy decisions which resulted in increasing opportunity and equality for women in the past decade.

TABLE 3
WOMAN OFFICER ACCESSION PLAN

	<u>Total Accessions</u>	<u>URL Accessions</u>	<u>Total End-Strength</u>	<u>URL End-Strength</u>
FY 80*	729	335	3980	1413
FY 79*	783	301	4358	1688
FY 80	756	350	4730	1919
FY 81	727	350	5005	2165
FY 82	750	350	5172	2386
FY 83	738	350	5431	2583
FY 84	723	350	5658	2759
FY 85	730	350	5860	2910

*Actual Accessions/End Strength

SOURCE: Hazard, Women in the Navy, 1980.

TABLE 4
ENLISTED WOMEN INVENTORY

	<u>FY-76</u>	<u>FY-79</u>	<u>FY-85</u>
TOTAL	19,194	24,119	45,000
Distribution	<u>1976</u>	<u>1977</u>	<u>1985</u>
- <u>Traditional Fields</u>	%	%	%
Administrative/Clerical	34.6	35	36
Medical/Dental	20.7	17	14
- <u>Non-Traditional Fields</u>			
Aviation	11.1	15	16
Deck	1.8	2	3
Other (e.g., Ordnance; Engineering, Hull)	2.4	4	14
- <u>Non-Rated</u>	29.4	27	17

SOURCE: Hazard, Use of Women in the Navy, 1980.

IV. FACTORS INVOLVED WITH INCREASED UTILIZATION OF WOMEN

At no time in the nation's peacetime history have women been utilized more in the military than during the past decade. Wild fears have abounded concerning the detrimental impact women would have on the military if used in increasing numbers. No one really knew the actual ramifications, as there was minimal historical information to analyze. Thus, during the 1970's female performance in the military was closely scrutinized, surveyed, and recorded. This chapter will discuss the more pertinent factors, issues, and findings that became evident as the female military participation rate increased.

A. SUPPLY AND DEMAND FACTORS

A significant decline in the population of young males has been forecast to occur through Fiscal Year 90. Estimates vary, but experts generally agree that the decline in the prime recruiting pool of 17-21 year old males from FY 77 to FY 90 will be approximately 17 percent. This equates to a reduction of approximately 1,500,000 potential male recruits [America's Volunteers, 1978, p. 53-54]. The problem is exacerbated because the military services have become increasingly selective about the mental qualifications of recruits [America's Volunteers, 1978, p. 35].

During the next five years, the Department of Defense projects requirements for 400,000 to 403,000 17-21 year old

recruits each year. Within the target population of 17-21 year olds, mental and physical disqualifications significantly reduce the size of the pool. Potential reductions in unemployment, and competition for these same 17-21 year olds from civilian industry, colleges, and universities could contribute to military recruiting problems. Consequently, the preferred recruitable male with a high school diploma scoring within mental categories I-III on the Armed Services Vocational and Aptitude Battery has become a supply-limited category recruit [Congressional Budget Office, 1977, p. 36]. The advent of the AVF and the projected shortage of eligible men for military service reinforced the social awareness movement of the 1970's, which emphasized increased utilization of women. Former Secretary of Defense, Elliot P. Richardson's comments accurately describe the changing attitude of the military toward women [Commander's Digest, 1973, p. 5]:

We need to make more and better use of women. We say this not just because we're for, in principle, the idea of assuring the equality of opportunity to women. We're not talking about the Department of Defense or the Services as instruments for putting an end to the vestiges of discrimination toward women. We're talking about the very direct interests of the Services, for their own purposes, in doing a better job for the United States in the era of the All-Volunteer Force. We're not thinking in terms of what we can do for women, we're thinking in terms of what women can do for us and for the national security. And I'm not sure that we're asking them to do enough.

Resultingly, the 1970's were a period of policy change concerning the utilization of women in the Navy. In the past, utilization of women was considered only as a last resort to

to be exercised after all efforts to draft or recruit from the male population were exhausted. In the Navy, the consideration of the utilization of women as sailors results from shortages in the male eligible population as well as from the changing role of women in our society. The feasibility of increasing women's roles is displayed in Figure 2, which demonstrates the untapped supply of females. Figure 3 graphically represents the increased role of women in manning the All-Volunteer Armed Forces of the 1980's.

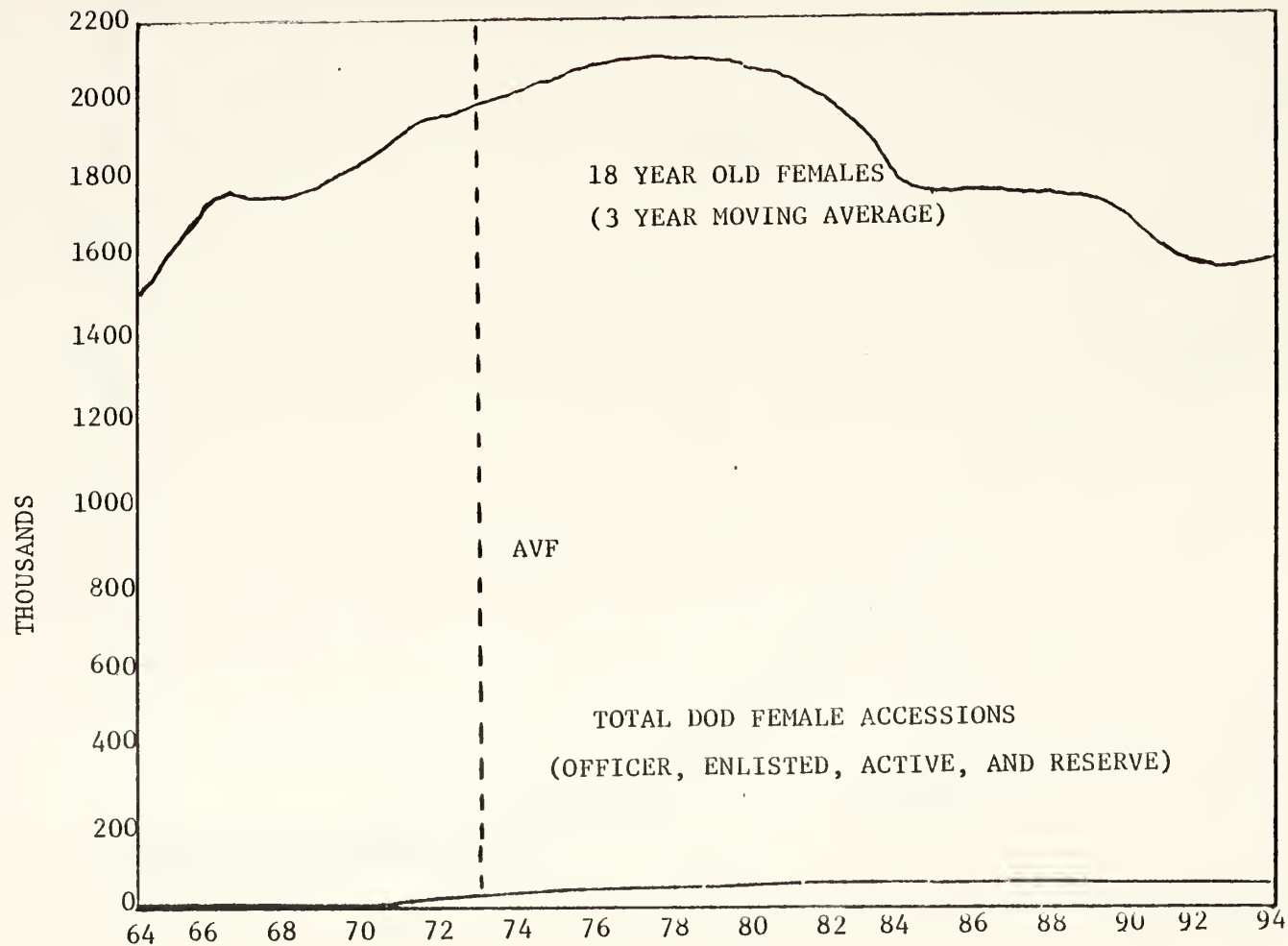
B. RESULTS OF MAJOR PILOT PROGRAMS

1. USS SANCTUARY

The Commanding Officer of USS SANCTUARY (AH-17) filed a report covering the pilot program for sea duty for women in April of 1974. The report covered the period 1 October 1972 to 31 October 1973, and made the following pertinent comments [Commanding Officer, USS SANCTUARY, 1973, p. 15-1]:

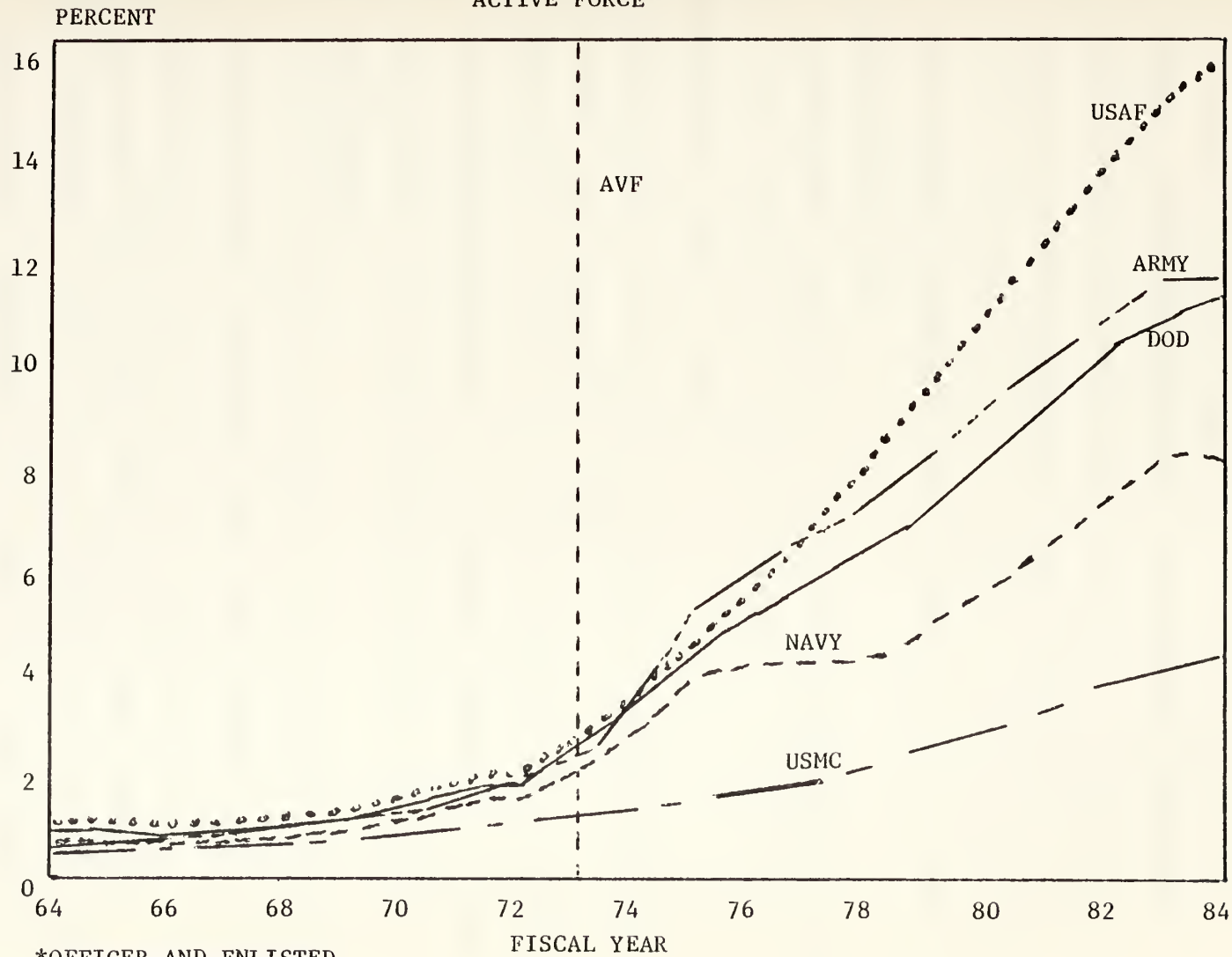
1. Women are capable and many serve onboard SANCTUARY, under the present administrative conditions, in perpetuity.
2. Women can perform every shipboard function with equal ease, expertise, and dedication as men do. No experience has been available to judge applicability of this statement to the engineering ratings.
3. The equal but separate doctrine has been accepted by all and must be practiced in all shipboard functions.
4. The policy to separate married couples aboard ship must

FIGURE 2
SUPPLY AND MILITARY
RECRUITING OF WOMEN



SOURCE: Hunter, Plans for Utilization of Women in the Military

FIGURE 3
WOMEN AS A PERCENTAGE OF THE TOTAL
ACTIVE FORCE*



SOURCE: Hunter, Plans for Utilization of Women in the Military

be upheld.

5. In general, it has been observed that women have fewer personal problems, special requests, and demands than the average male; although they notably suffer minor ailments, enlisted women are not plagued by familial difficulties, problems, and obligations. This is of course due to non-dependent status required but it is of noticeable comparison in terms of lost man hours for extra liberty, humanitarian considerations, and familial responsibilities.

Additional reports up to the time of decommissioning in March of 1975 included the following [Women in the Navy Information Book, 1979, p. 49-52]:

1. The percent of disciplinary actions for women, relative to men, was consistently lower.
2. With the development of a cadre of female petty officers and greater experience by male petty officers in supervising women, division management problems declined significantly.
3. Concerns expressed by crewmen's wives regarding presence of women onboard decreased over time and were an insignificant factor after the first several months.
4. There was little formal screening of women assigned to SANCTUARY. While all volunteered for naval service, many had not volunteered for sea duty. SANCTUARY also received a fair share of less qualified personnel,

including apprentice training failures, both male and female.

2. Service Craft (Tugs)

Between January and March 1973, assignment of women commenced for duty on service craft (tugs). The program was initiated by assignment of 33 enlisted women to the Service Craft Division, Naval Station, San Diego [Defense Management Journal, 1978, p. 4].

Several problems immediately surfaced after the women reported to the division. Camaraderie among the 220-man division was very strong due to the strenuous demands of the job and "family" atmosphere that prevailed. Introduction of enlisted women into this cohesive work group was perceived by the group as a threat in that prestige, esprit-de-corps, and traditional role behavior were challenged by the very presence of women [Defense Management Journal, 1978, p. 5].

Unique supervisory and management challenges were created by the unexpected influx of a large group of women in a short period of time. Autocratic leadership styles used with the men were ineffective with the women. When the craftmasters changed their leadership styles in accommodation to the women, the resulting inconsistencies rendered them ineffective with both the women and the men [Women in the Navy Information Book, 1979, p. 61-62].

The initial evaluation was that the women's shortcomings were the result of inexperience and inadequate

training. Lack of familiarity with the working environment required that women be closely supervised. Morale and discipline problems resulted, coupled with a reduction in productivity [Defense Management Journal, 1978, p. 7-9].

A Human Resource Management team was requested and worked with the division. They made several key observations [Defense Management Journal, 1978, p. 8-9]:

1. The physical environment, specifically berthing, must accommodate women on an equal basis with men.
2. Technical and physical training must also be equal. The absence of such training will result in the inability of women to perform their assigned duties.
3. Counseling for both men and women at all levels is necessary to facilitate adjustment to new group dynamics and attitude changes.
4. Leadership and management techniques must be examined prior to the introduction of women since inconsistencies can undermine confidence in managers and result in decreasing morale and productivity.
5. A decisive management policy against preferential treatment of women must be implemented. At the same time, differences in assets, needs, and abilities of all crewmembers must be taken into consideration.

This experience illustrated that the introduction of women into traditionally all-male working environments requires the refinement and adaptation of the best management and

leadership techniques. Women must be adequately trained and properly motivated. Advance planning, responsive interpersonal relations, effective group dynamics, and extensive team building at all organizational levels is required.

3. Women at the U.S. Naval Academy

The first group of women (80) reported to the Naval Academy in the summer of 1976. Difficulties were expected since they were entering an all male environment with strong traditions. There were no female role models after which to pattern their behavior. As was expected, the initial attitude of male midshipmen toward the women was generally unfavorable. Many males felt the entry of women would lower standards and erode military tradition. . . . Their male stronghold had been infiltrated [Women in the Navy Information Book, 1979, p. 56].

The Naval Academy administration dealt directly with the integration process problem. The effort was low-key, conservative, and focused on the integration issues. Emphasis was placed on equal status and equal treatment. Changes to the curriculum and environment were minimal; summer orientation cruises, sports, and physical education were the primary activities altered. Kathleen Dunning of the Navy Personnel Research and Development Center conducted an extensive survey at the Naval Academy during the 1976-1977 academic year to determine if the integration process had changed male midshipmen's attitudes. Dunning [1976, p. 4-20] determined that:

1. Stereotyping and traditionalism decreased as male-female

contact increased.

2. Egalitarian attitudes were strongest in integrated squads and platoons.
3. Upperclassmen were the most resistant to change.
4. Women held more egalitarian attitudes than men.

The novelty of women at the Naval Academy has begun to fade from the news. The reduced visibility and publicity has been an important factor in creating an environment conducive for smooth integration. Graduation of the last all-male class in 1979 also helped the integration process.

Scholastically the women have performed on a par with the men. They have also become well established in athletics, with some women on traditionally male varsity teams and women's varsity teams competing creditably against more experienced opponents [Clark, 1977, p. 71]. The female class of 1980 is expected to graduate 55 of the 80 women that entered in 1976, which closely equates with the male graduation percentages [U.S. News and World Report, 1980a, p. 36].

The long range impact of this program is still unknown. The female graduates' retention rates, performance in the service, and their success in the promotion process are questions for the future.

The prohibition against women serving on combat vessels is currently the biggest roadblock to full utilization of graduating female midshipmen. Women, entering the service as commissioned officers, aspiring to higher ranking positions

of leadership and command, are prohibited from acquiring combat experience and, consequently, remain unqualified for command of combat units [Clark, 1977, p. 72-73]. Thus, women are prohibited from obtaining the full benefits of the Naval Academy's professional training.

4. U.S. Coast Guard Utilization of Women

The Coast Guard, not constrained by Title 10 U.S. Code, Section 6015 restrictions in peacetime, started assigning females onboard ships in October 1977. Two high endurance cutters, USCGC MORTENTHAU (WHEC-722) and USCGC GALLATIN (WHEC-721), were selected to be the first cutters to employ women.

Preparation prior to the arrival of the women, which included 10 enlisted women and 2 female officers assigned to each ship, significantly improved the assimilation process. Male crew members were repeatedly briefed regarding the issues involved in integrating a crew, a family newsletter was sent out which explained the program and outlined command policy, and a policy of passive cooperation with the press was established to keep public visibility and pressure to a minimum [Women in the Navy Information Book, 1979, p. 51].

The two ships had arduous schedules involving Alaskan patrols, operation with U.S. Navy vessels, and over 200 days at sea each year. MORTENTHAU initially experienced difficulties because of the women's lack of shipboard expertise, especially with the senior enlisted women, but this problem disappeared with time and training. The problem of men

adjusting to the presence of women aboard ship was minimal, partly resulting from the Coast Guard's policy of fully integrating its training establishment (Recruit Training and Specialty Schools). The only physical problem associated with the performance of the women was their inability to handle lines used in mooring the ship, a physical deficiency also shared by the smaller men in the crew. The Commanding Officer reported that the social environment within the ship improved with the women aboard, that efficiency did not suffer, and that none of the calamities predicted by those opposed to women serving aboard ships occurred [McDonough, 1979, p. 6-12].

MORGENTHAU's experience parallels that of the USCGC GALLATIN. GALLATIN's Commanding Officer stated that his women crewmembers had performed their duties fully and professionally and that the experience of having women in his crew had been highly satisfactory [Breed, 1979, p. 18-19].

With the successful employment of women aboard ships documented, the Coast Guard has expanded the utilization of women on ships, including female command of Coast Guard cutters.

5. Maximum Women Army Content (MAXWACS)/Reforger Women Army Content (REFWACS)

Two army studies designed to evaluate the performance of women under simulated combat conditions are worthy of consideration because there is little information available concerning the performance of women or mixed-gender groups in combat.

In the fall of 1976 and again during the spring of 1977 the performances of 40 combat support and combat service companies, many integrated with between 15-35 percent women, were evaluated. This exercise, called MAXWAC, demonstrated that the number of women, up to 35 percent of a company, did not affect a unit's ability to effectively accomplish its combat support missions. The evaluators concluded that leadership, training, morale, and personal turbulence affected unit performance, but that the number of women was not a factor [U.S. Army Research Institute for the Behavior and Social Sciences, 1977, p. I-2].

Similarly, a REFWAC study of women on sustained field operations in Germany was conducted in 1977. Results published in May 1978 paralleled the findings of the MAXWAC study. The support units, manned having as much as 10 percent of their personnel female, were not adversely affected by the presence of women, and women who were properly trained for their jobs did as well as men with comparable training [DOD Annual Report FY 80, 1979, p. 302-304].

6. Women in Ships Program

The most significant step toward integration of women officer and enlisted personnel into the Navy mainstream and toward diversification of assignment opportunities occurred in FY 79 with the assignment of women to shipboard duty. This was made possible through successful Navy sponsorship of the amendment to 10 USC 6015 enacted in October 1978. The

amendment made possible the assignment of women to noncombatant ships and to combatants on a temporary additional duty basis for up to 180 days (combatants not expected to receive combat missions). The assignment of women to ships is scheduled to include approximately 165 officers and 5,000 enlisted women by FY 85 [Hazard, 1980b].

The integration process has been assisted by careful selection of ships configured to accommodate women, through orientation training encompassing the entire crew and their dependents, and development of monitoring procedures designed to quickly identify problems requiring attention.

The participating types of ships are delineated in Table 5. As shown in the table, the number of ships in the program will decline through FY 84, due to a shrinking non-combat ship inventory. Figure 1, previously displayed, demonstrates the planned increased employment of women up to FY 85.

The number of females due for assignment to shipboard duty, within the Women in Ships program, is a function of the female personnel inventory, ship inventory, billet availability, and assignment policies. Female petty officers are required in representative numbers to maintain a necessary petty officer to non-rated balance on the ships and provide role models for young non-rated enlisted women. At the inception of the program, the Navy Manpower and Personnel Center (NMPC) assignment policy required that 50 percent of the women

TABLE 5
QUALIFYING SHIPS

	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>	<u>FY 83</u>	<u>FY 84</u>
MAJOR AUX (AD, AR, AS)	25	26	26	25	25	25
RESEARCH (AG, AGDS, AGFF, AVM)	4	2	2	2	2	1
MINOR AUX (ARS, ASR, ATF, ATS)	16	15	15	15	15	15
MLSF SHIPS (TAF, TAGS, TATF)	13	12	12	12	12	12
TRAINING CARRIER (AVT)	1	1	1	1	1	1
	<u>59</u>	<u>56</u>	<u>56</u>	<u>55</u>	<u>54</u>	<u>53</u>

SOURCE: Hazard, Women in the Navy, 1980.

utilized on ships be petty officers. With the continued expansion of the program, lack of petty officers has necessitated a 30 percent petty officer to 70 percent non-rated female ratio [Hazard, 1980a]. Even this reduced ratio has been difficult to maintain and scarcity of women petty officers jeopardizes future expansion plans. Table 6 displays the pay grade distribution of enlisted females and highlights the paucity of senior female enlisted personnel.

TABLE 6
ENLISTED FEMALE PAY GRADE DISTRIBUTION

	<u>#/% of Total Females</u>	
	<u>1976</u>	<u>1979</u>
E-1	1,372/7.1	3,475/14
E-2	3,424/17.8	3,543/14.7
E-3	6,192/32.3	5,942/24.6
E-4	5,844/30.4	5,790/24
E-5	1,950/10.2	4,408/18.3
E-6	308/1.6	791/3.3
E-7	82/<1	140/<1
E-8	14/<1	26/<1
E-9	8/<1	4/<1

NOTE: 96% are E-6 and below due to increasing accessions and time in paygrade requirements.

SOURCE: Hazard, Women in the Navy, 1980.

A monitoring program, requiring participating Commanding Officers to submit quarterly reports is said to have provided a meaningful basis for initial program evaluation. The

Commanding Officer reports are said to indicate that the program has been successful to date. The reports have stressed that male and female crewmembers have acclimated successfully to the integrated work environment aboard ship, high morale prevails among participating ships, and that women are performing their assigned duties and exercising leadership roles effectively [Hazard, 1980a].

However, management problems have also surfaced during the initial phases of this program. They include [Hazard, 1980a]:

1. The need for more female petty officers.
2. Personnel turnover due to crewmember marriage and pregnancy (approximately 12 percent of the females have been reassigned by reason of pregnancy).
3. Lack of underway time for many of the ships, restricting underway training opportunities for the female officers. This severely complicates their ability to complete Surface Warfare Officer (SWO) qualifications necessary within the 1110 community, and gain essential sea experiences.
4. The limited number of women SWO billets aboard eligible ships negatively impacts on female career opportunities within the 1110 warfare community.
5. The requirement to improve the quantity and quality of work uniforms for women aboard ships.

C. UTILIZATION AND JOB PERFORMANCE ANALYSIS

The increased employment of women in the Navy during the decade of the 70's has helped clarify and answer many of the issues that surfaced when female utilization in the military was heatedly debated. The following paragraphs will discuss the more pertinent issues.

1. Female Enlistment

Patricia Thomas, of the Navy Personnel Research and Development Center, has been a leader in research concerning female motivation for enlisting in the Navy. In a 1975 survey of approximately 1,000 female recruits, at Recruit Training Command in Orlando, Florida, Thomas [1977, p. 1-17] provided a list of 14 motivational factors. The women were asked to indicate those factors that were important in their decision to enlist. The three strongest motivators were "to make something out of my life," "for more education, new skills or training," and "to travel and meet new people." A control group of 1,000 male recruits chose the same three factors and in the same order of importance. The males and females also agreed in their perceptions concerning the three least relevant variables involved in the enlistment education process. It was concluded that males and females join the Navy for the same basic reasons. In a later study, Thomas and Durning [1978] replicated these findings.

Segal [1978, p. 108] postulated that women are particularly attracted to the military because of the "equal pay

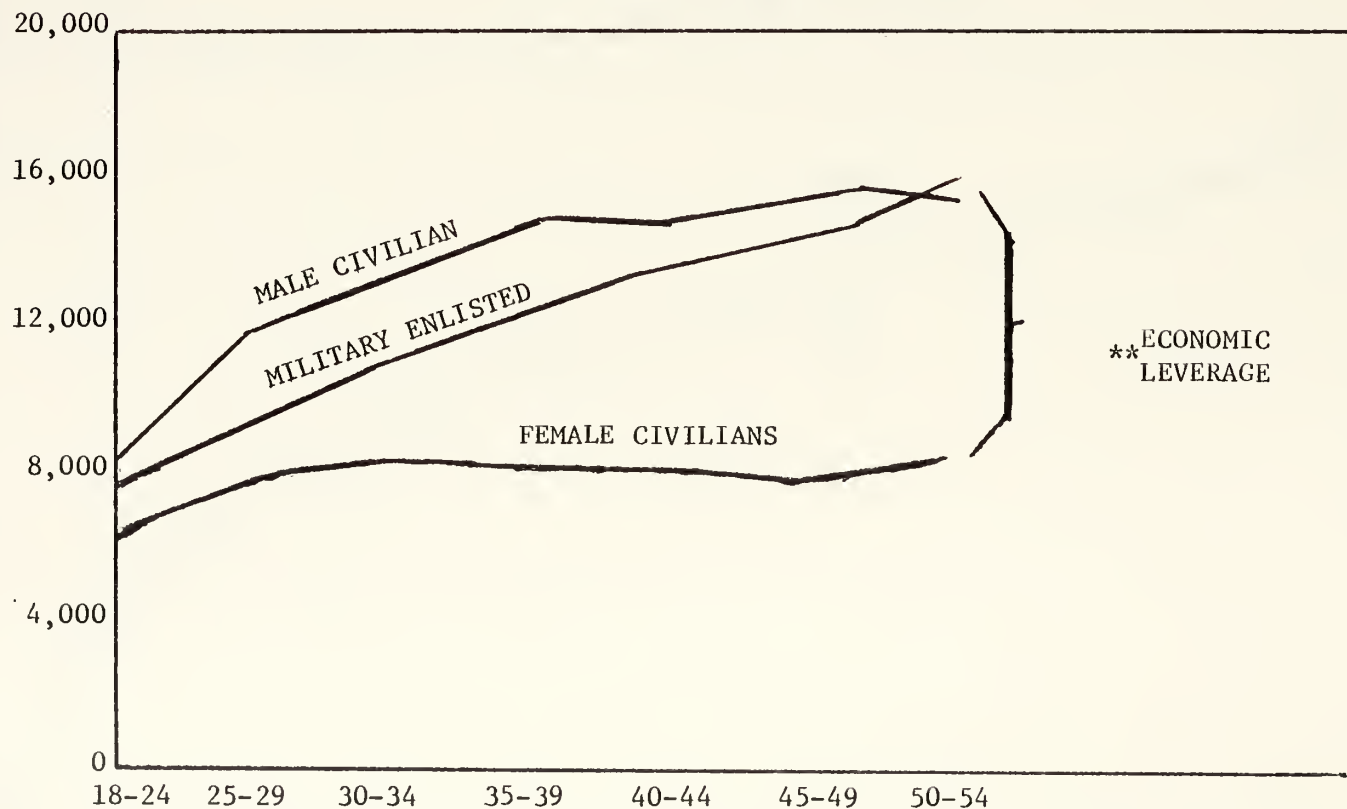
for equal work" aspect of military life. This explanation appears fundamentally sound. Binkin and Bach [1977, p. 70] compared military and industry pay schedules and determined that military pay for women exceeded that offered by civilian companies far comparably. Several recent Wall Street Journal articles substantiate this point [Wall Street Journal, 1979a, 1979b, 1979c].

Additional data to substantiate that the military is an attractive employer for females are found in Brown's [1978, p. 17-23] comprehensive study of 40,969 caucasian men and 26,621 caucasian females. Using 1970 census data, he determined that the mean earnings of white males were 2.3 times those of the females. He also noted that female workers fared better with government than with private employers, possibly due to fewer incidences of pay discrimination.

Figures 4 and 5 are provided to demonstrated pay advantages for women joining the military.

Another noteworthy aspect of Navy female enlistment is the higher standards of education required for female enlistment. In contrast to more lenient male enlistment prerequisites, women must have high diplomas or GED equivalents and be eligible for "A" school to be accepted for enlistment [Women in the Navy Information Book, 1979, p.17]. Consequently, the mean educational levels and AFQT scores of enlistees have improved, in part, due to the increased utilization of women in the Navy. Tables 7 and 8 provide data to support this contention.

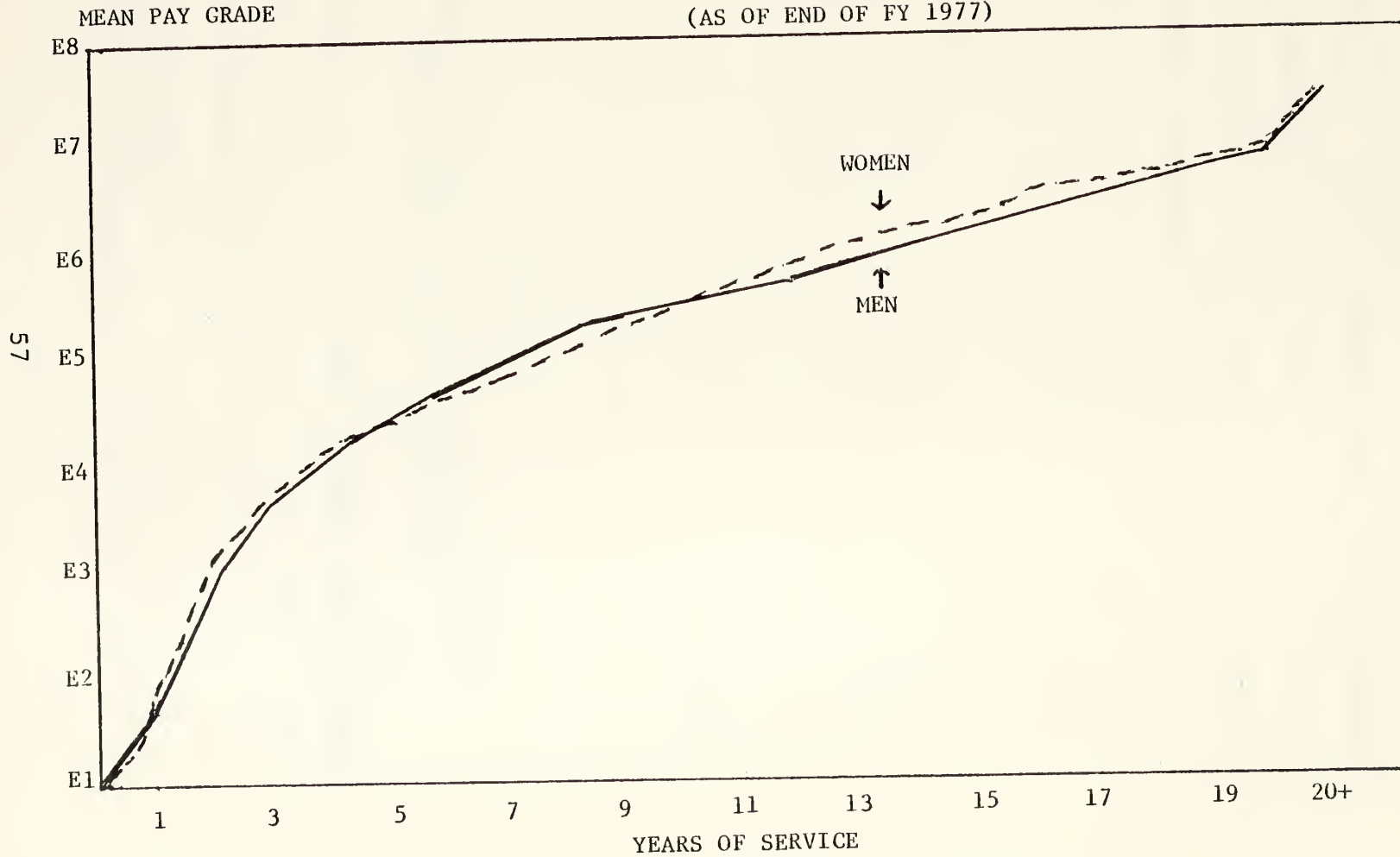
FIGURE 4
 **MILITARY-CIVILIAN EARNINGS COMPARISONS
 FOR WOMEN BY AGE



NOTE: COMPARISON OF MEAN ANNUAL EARNINGS OF CIVILIAN YEAR-ROUND, FULL-TIME WAGE AND SALARY WORKERS WITH AT LEAST FOUR YEARS OF HIGH SCHOOL, BUT LESS THAN FOUR YEARS OF COLLEGE BY SEX AND AGE WITH MILITARY ENLISTED PERSONNEL BY AGE FOR CALENDAR YEAR 1975.

SOURCE: Binkin-Bach Study, Women and the Military

FIGURE 5
DOD AVERAGE PAY GRADE FOR
ENLISTED MEN AND WOMEN
BY YEAR OF SERVICE
(AS OF END OF FY 1977)



SOURCE: Hunter, Plans for the Utilization of Women in the Military

TABLE 7
MEAN AFQT PERCENTILE SCORES

<u>Fiscal Year 1971</u>	<u>Navy Total</u>	<u>DOD Total</u>
Total NPS Accessions	60	54
High School Graduates	65	61
Non-High School Graduates	48	43
Women	68	60
Men	60	54
 <u>Fiscal Year 1977</u>		
Total NPS Accessions	62	58
High School Graduates	64	60
Non-High School Graduates	56	51
Women	68	72
Men	61	56

SOURCE: America's Volunteers, 1978

TABLE 8
CHARACTERISTICS OF MALE AND FEMALE RECRUITS,
FISCAL YEARS 1973-76, BY SERVICE

<u>Characteristic</u>	<u>NAVY</u>		<u>DOD</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
Average Age	18.6	19.8	18.9	20.0
Percent High School Graduates	70.4	98.6	62.9	91.2
Average Armed Forces Entrance Test Score	58.2	62.9	55.8	66.0

SOURCE: OASD, Use of Women in the Military, 1978

2. Retention/Attrition

From 1960 to 1970, women remained in the service for relatively shorter periods of time than men. This higher attrition rate was greatly influenced by the policy of arbitrarily discharging pregnant women [Office of the Assistant Secretary of Defense, 1978, p. 8]. An increase in female retention was noted from 1971 to 1975. During this period, female retention matched or surpassed male retention [Binkin and Bach, 1977, p. 61]. This improved retention was partially attributable to a 1972 U.S. Supreme Court decision that enabled pregnant military women to have abortions in military medical facilities and then continue their careers. However, in 1978 federal funds for this program were eliminated. Female retention was also aided by a Department of Defense policy, implemented in 1975, which permitted pregnant women to remain in service during and after their pregnancies, with a discharge available [Hoiberg, 1980, p. 28].

Since 1976, Navy enlisted male first term retention has remained virtually constant, but male career retention has dwindled while Navy enlisted female first term and career retention have drastically declined. Table 9 illustrates this reduction in retention in the enlisted ranks, but also points out that female unrestricted line officers are being retained at a higher rate than their male contemporaries.

Durning and Mumford's [1976, p. 1-29] study of 1970 enlisted women and 22,073 enlisted men may provide some of the

TABLE 9
COMPARISON OF MALE AND FEMALE RETENTION

A. OFFICERS

	<u>Unrestricted Line</u>		<u>All Officers</u>	
	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>
FY-76	39%	58%	34%	36%
FY-77	37%	55%	41%	40%
FY-78	40%	48%	40%	45%
FY-79	40%	44%	42%	42%

B. ENLISTED

	<u>First Term</u>		<u>Career</u>	
	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>
FY-76	31.6%	43.4%	74.9%	63.2%
FY-77	32.7%	33.1%	68.3%	53.6%
FY-78	34.7%	31.8%	63.8%	49.5%
FY-79	30.5%	25.0%	62.5%	49.9%

SOURCE: Hazard, Women in the Navy, 1980.

reasons why the female enlisted retention rate is decreasing. They found the female pattern of satisfaction/dissatisfaction with the Navy varies from that of Navy males. Additionally, they concluded the following:

1. The newly enlisted, non-rated women are initially more positive in their perceptions of the Navy than men.
2. As women gain seniority, their interactions with their peers become more negative.
3. Female dissatisfaction reaches a peak at the E-6 level. The female E-6 perceives her supervisor as helpful and supportive in general but less helpful in assisting in improving her performances.
4. As enlisted men gain seniority, they become more satisfied with the Navy.

The implications of the decreased female retention rates are significant. Table 10 provides the 1979 pay grade distribution of enlisted females in the Navy. Among this distribution, 96 percent are E-6 and below due to increasing accessions and time in paygrade requirements. If enlisted female 25 percent first term and approximately 50 percent career retention continues, the Women in Ships plans will be jeopardized due to unavailability of female petty officers.

Recent Defense Manpower Data Center (DMDC) attrition data for enlisted male and female non-prior service (NPS), four year enlistees reflect different trends than the retention data for FY 1976-79, displayed in Table 9. Table 11 displays

attrition rates [DMDC Cohort Files, Fy 1972-1975] of male and female non-prior service, four year enlistees for FY 1972 through FY 1976 cohort groups. Whereas Table 9 shows that retention rates for first term Navy males have remained nearly constant, and retention for first term Navy females has rapidly declined, Table 11 shows attrition for first term Navy males is increasing, but declining for first term Navy females. Comparison of Tables 9 and 11 indicates that increasing numbers of women are completing their first term of service but then departing the Navy.

TABLE 10
FEMALE ENLISTED GRADE DISTRIBUTION

	<u>#/% of Total Females</u>
E-1	3,475/14
E-2	3,543/14.7
E-3	5,942/24.6
E-4	5,790/24
E-5	4,408/18.3
E-6	791/3.3
E-7	140/<1
E-8	26/<1
E-9	4/<1

SOURCE: Hazard, Women in the Navy, 1980.

TABLE 11
4 YEAR, NON-PRIOR SERVICE ENLISTEES
(FY 1972-75 MALE/FEMALE COHORT ATTRITION RATES)

FISCAL YEAR ENLISTMENT

		1972	1973	1974	1975
NAVY	MALE	34.74	33.99	41.19	38.08
	FEMALE	46.15	45.79	42.58	41.16
DOD	MALE	35.19	39.15	40.02	37.92
	FEMALE	47.75	43.98	41.61	40.06

SOURCE: DMDC Cohort Files, FY 1972-1975 Enlistment Years.

3. Traditional/Nontraditional Job Utilization of Women

The ability of the Navy to meet increasing female accession quotas demonstrates willingness of a sufficient number of women to serve in what, traditionally, has been largely a male career arena. However, as was pointed out in a GAO report, [1976, p. 1-17] reluctance appears to exist to assign, select, or counsel women toward the available nontraditional Navy jobs. This problem is compounded by the fact that the preponderance of female recruits gravitate toward the more traditional Navy jobs [Thomas, 1978b, p. 312].

As early as December of 1974 the Government Accounting Office prepared a report for Congress which discussed the progress and problems of military job opportunities for women. The GAO found that most women were being assigned to administrative and medical jobs, and that some of those women assigned to the newly opened specialties were actually performing administrative work. THE GAO [1976, p. i] report identified three main factors that contributed to the continuance of the traditional pattern of female utilization in the military:

1. The failure of recruiters to inform women of nontraditional occupational options available to them, such as electronics, mechanical repair and communications.
2. The women's preference for administrative or medical specialties.
3. The restriction against women participating in combat activities, which prevented their assignment to several

specialties theoretically open to them.

The GAO report paralleled the early findings of Arbogast. Arbogast [1972, p. 17] stated the following:

In the past, women in the services have worked chiefly in only two of the eight military occupational groups: administration, about 67 percent, and health, about 22 percent.

The Navy has experienced significant difficulty in recruiting females into the nontraditional ratings. This may be symptomatic of long standing societal behavior, which for generations has tended to nudge women into jobs such as nurses, secretaries, receptionists, and file clerks. With roughly 102 ratings in the Navy, approximately 12 are now closed to women and these are combat related [Women in the Navy Information Book, 1979, p. 16].

There are data which at first seem to be in conflict as to whether females seek or avoid the military nontraditional jobs. Thomas [1978b, p.312] gathered demographic data from approximately 1000 enlisted recruit females as part of a 1976 longitudinal study. She concluded that the female recruit values friendly coworkers and pleasant surroundings and experiences dissonance if she is assigned to a nontraditional job.

On the other hand, Borack [1978, p. 1-21] conducted telephone screening interviews with 1820 women (between 18-25 years old and not currently in the military], using the National Probability Sample for telephone previxes to ensure

geographic dispersion and representativeness, and found many women interested in nontraditional jobs. His findings are displayed in Table 12.

TABLE 12

PERCENT OF WOMEN INTERESTED IN JOINING THE MILITARY UNDER
VARIOUS CONDITIONS

<u>Interest Level</u>	<u>Current Conditions</u>	<u>Option I</u>	<u>Option II</u>	<u>Option III</u>
Extremely	3	5	3	4
Very	6	9	8	8
Quite	5	10	9	8
(Positive Pro- pensity)	(14)	(24)	(20)	(20)
Rather	9	12	10	10
Not too	28	22	20	18
Not at all	49	42	50	52

SOURCE: Borack, Intentions of Women to Join the Military:
Results of a National Survey, 1978.

The following Table 12 options were applicable [Borack, 1978]:

1. Job training in nontraditional fields but no service on ships or aircraft or at locations near any front lines.
2. Similar job training but service on some ships or aircraft and at some locations near a front line.
3. Equal treatment with men in terms of jobs, advancement, and combat risk.

This information indicates that if the Navy wants more females to enter nontraditional jobs (and they do to alleviate male shortfalls) then a very conscious effort should be made to recruit nontraditionally oriented women. Research and market analysis continue to indicate that women are willing to enlist in numbers that will support the FY 85 goal (45,000 female enlisted) and that expanded utilization is possible. Thus, a key women's issue appears to be attracting women with the aptitudes to meet the technical and mechanical skill requirements of the Navy.

Hinsdale, Collier, and Johnson conducted research in 1978 concerning the adaptation of women to Navy nontraditional jobs, the job values of women in traditional and nontraditional roles, and attitudinal differences between women in traditional and nontraditional jobs. Pertinent tabular results of their interviews with 133 women are presented in Tables 13, 14, and 15. Further, Hinsdale, Collier, and Johnson's [1978, p. 2-24] conclusions included the following:

1. Women in traditional and nontraditional jobs evidence no significant differences in job satisfaction.
2. Women in traditional jobs describe themselves as more feminine than women in nontraditional jobs.
3. Differences in the job values of women in traditional and nontraditional jobs suggest that those in the latter group value aspects of their jobs which facilitate career advancement, such as responsibility, challenge,

TABLE 13
RANK ORDER OF JOB VALUES FOR WOMEN IN
NONTRADITIONAL AND TRADITIONAL JOBS

<u>Job Value</u>	<u>Women in Nontraditional jobs</u>	<u>Women in Traditional Jobs</u>
Variety and interest in job tasks	1	2
Coworkers and subordinates	2	1
Job responsibility	3	8
Job challenge	4	11
Job experience	5	9
Job autonomy and discretion	6	4
Making a contribution to the Navy	7	6
Working conditions	8	5
Job security	9	14
Praise and recognition from superiors	10	16
Equal treatment of men and women	11	17
Personal growth and development	12	12
Helping others	13	7
Advancement opportunities	14	13
Clientele (patients, transients, etc.)	15	3
Job competence	16	15
Male superior(s)	18	18

SOURCE: Hinsdale, Collier, and Johnson, Navy Enlisted Women in Traditional and Nontraditional Jobs, 1978.

TABLE 14
ATTITUDINAL DIFFERENCES BETWEEN
WOMEN IN NONTRADITIONAL AND TRADITIONAL JOBS

Item	Women in Nontraditional Jobs (% yes)	Women in Traditional jobs (% yes)
Do you think:		
women who advance in the Navy must sacrifice their femininity?	13.1	9.0
women in nontraditional jobs must sacrifice their femininity?	34.2	32.8
women should have the opportunity to serve on Navy ships?	74.3	78.4
women should have the obligation to serve on Navy ships?	43.7	42.4
men are more likely to succeed in the Navy than women?	60.5	63.6

SOURCE: Hinsdale, Collier, and Johnson, Navy Enlisted Women in Traditional and Nontraditional Jobs, 1978

TABLE 15
RANK ORDER OF REASONS FOR NOT REENLISTING OF
WOMEN IN NONTRADITIONAL AND TRADITIONAL JOBS

Reasons	Women in Nontraditional jobs	Women in Traditional jobs
General dissatisfaction with the Navy	1	16
Lack of advancement opportunities	2	7
Unsatisfactory pay	3	-
Interferes with marriage, family, home	4	2
Lack of support, encouragement from Navy personnel	5	11
Separation from spouse	6	1
Lack of personal freedom; regimentation	7	4
Lack of educational opportunities	8	5
Interest in trying civilian life	9	9
Lack of individuality	-	10
Sexual harassment	-	12
Inconsistent leadership; favoritism	-	13
Living in barracks	-	14
Time required for advancement	-	15
Uncertainty regarding future assignments	-	17
Cutbacks/poor benefits	-	3

SOURCE: Hinsdale, Collier, and Johnson, Navy Enlisted Women in Traditional and Nontraditional Jobs, 1978.

and recognition, while the former value aspects which satisfy their day-to-day needs for rewarding interpersonal contacts, job autonomy, and good working conditions.

4. There are only minimal differences in the attitudes of the two groups of women. However, women in nontraditional jobs are slightly more inclined to believe that women should have the obligation to serve on Navy ships and slightly less inclined to believe that men are more likely to succeed in the Navy.
5. Differences between the two groups in reasons for reenlisting and not reenlisting reflect their comparative job values. It appears that women in traditional jobs more often plan to reenlist to pursue short-range payoffs such as travel, pay, and benefits, while those in nontraditional jobs more often plan to reenlist because of long-range payoffs like job security and educational benefits.

Hunter and Nelson [1979, p. 45] conclude that women are retained at higher rates than men in skills more traditionally identified with women, and at lower rates in the nontraditional skills such as electrical equipment repair, technical, mechanical repair, and crafts. They postulate that the reason for poorer retention of women in nontraditional occupations is the absence of senior women to provide support and to serve as role models.

Despite female reluctance to move into nontraditional jobs, the Navy has expanded their utilization in nontraditional fields. Figure 6 indicates that 50 percent of the female enlisted inventory, as of 31 December 1979, were assigned in nontraditional areas. The current problems is retaining these women in higher numbers.

4. Physical Differences

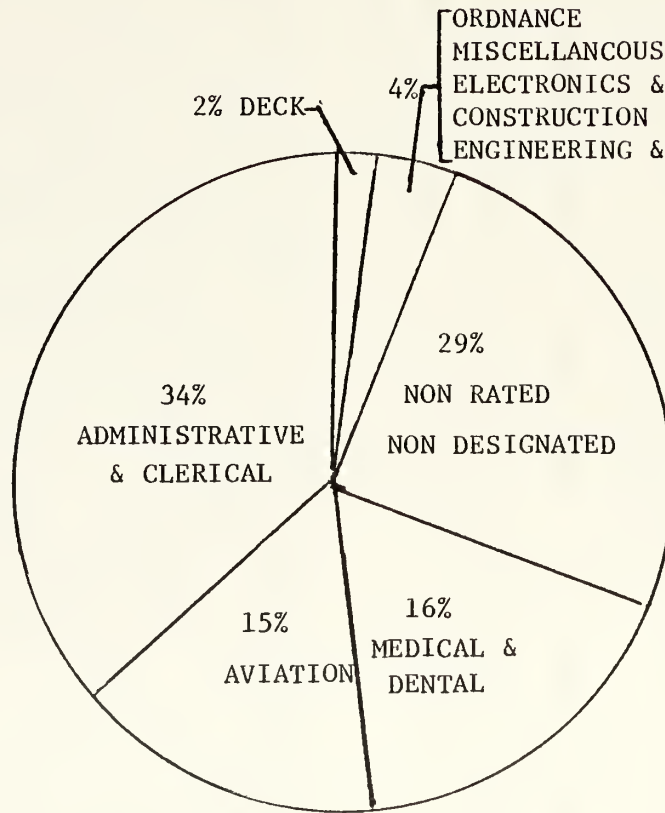
The basic physiological differences which occur between men and women undoubtedly play a role in the differences between the sexes in work capacity, physical performance, and endurance. Other factors such as opportunities to participate in strenuous activities, social customs, effects of aging and the menstrual cycle also influence these differences.

However, increased opportunities to participate in sports and other strenuous activities, and the revised cultural customs of an "enlightened" society tend to lessen the sex differences which now exist.

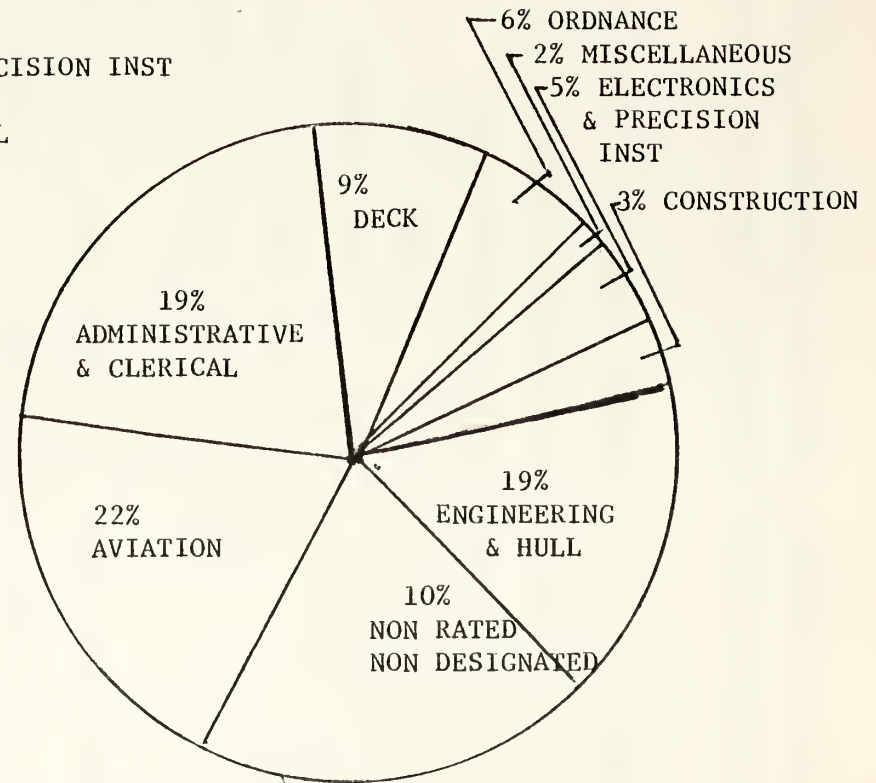
Many differences which do exist have an organizationally significant effect only at the upper limit of women's work capacity. In this respect, the Navy has delayed in establishing physical standards for all the various jobs a sailor might be expected to do [Robertson, 1979, p. 12]. The Navy should follow the Air Force and Army lead and quantify the physical requirements for each job. An Army study [Murphy and Nemmers, 1978, p. 3-9] concerning the operation of the 105 mm and 155 mm howitzers, showed that the upper

FIGURE 6
ENLISTED INVENTORY

(DISTRIBUTABLE AS OF 31 DECEMBER 1979)



25,548 FEMALES



331,683 MALES

SOURCE: Hazard, Women in the Navy

limit of women's strength was either unknown or poorly understood and that such limits frequently did not have to be approached.

This is not to imply, however, that all jobs should be open to women with no considerations given to strength requirements. Some jobs exceed the strength capabilities of many men. Given the great variability of women's strength presented by Laubach [1976, p. 534-542], combined with the fact he found (in at least 50% of the data he studied) that the 5th percentile value of men's strength scores exceeded the 95th percentile of women's strength scores, assignment of many women to the most physically demanding jobs would be clearly inappropriate. Jobs must be thoroughly task analyzed so that specific strength requirements can be determined and people assigned accordingly.

It should also be noted that the tasks of Navy personnel are becoming more and more characterized by brain power rather than brawn, as indicated in a report by the Naval Ship Engineering Center [1974, p. 7]:

Whereas in the past muscle power was an essential characteristic of those who served onboard Naval ships, it is less essential on today's ships. While elements of strength still play a part in the sailor's role, those elements are no longer the major elements. The ship's crew must possess the know-how to cope with the increased technological sophistication of today's naval vessels. It is anticipated that there are a few physically strenuous tasks which most women cannot perform. However, it should be noted that there are other tasks at which women are more proficient than men, including those associated with vigilance.

5. Absenteeism and Lost Time

Absenteeism and lost time due to pregnancy and menstruation have been frequently cited as inefficiencies associated with women. However, the prevailing evidence indicates that little time is lost due to menstruation. While pregnancy does result in some lost time, the findings of studies comparing lost time and absenteeism between men and women clearly show that men account for much more lost time in the Navy.

Table 16 compares major lost time categories in the Navy for enlisted men and women computed during the FY 76:

TABLE 16
COMPARISON OF LOST TIME FOR ENLISTED
MEN AND WOMEN IN THE NAVY

<u>Lost Time Category</u>	<u>Lost Days as a % of Total Days Available</u>	
	<u>Women</u>	<u>Men</u>
Alcohol Abuse	.09	.12
Drug Use	.02	.12
Unauthorized Absence	.05	.24
Returned Deserters	.07	.62
Abortion	.03	0
Pregnancy	<u>.37</u>	<u>0</u>
	0.63	1.10

SOURCE: OASD, Use of Women in the Military, 1978

Similarly, a Department of Defense (DOD) lost duty time study was conducted from July 1, 1977, to December 31, 1977.

The reported data are summarized in Table 17. Women continued to lose less time than men in the Navy, but opposite results were noted in the Army and Air Force. DOD concluded that lost time for men and women should not be a major management concern [Office of the Assistant Secretary of Defense, 1978, p. F-32].

An article in the May 1969 issue of the Naval Institute Proceedings [Harris, 1979, p. 83] reported a recent lost time study. The study compared time lost on the job by Navy men and women in two sample groups: the first group included 1000 men and 1000 women who entered the Navy in a specified period; the second included all men and women assigned to selected aviation squadrons ashore. In effect, the study evaluated a random sample of men and women irrespective of job assignment, and a sample of men and women working in the same organizations and under similar circumstances.

The study reported [Harris, 1979, p. 83] that men were absent from the job almost twice as much as women, 703 days a year per 100 men versus 422 days a year per 100 women. Additionally, it was noted that when a woman was away from the job, her absence was usually expected. The men, on the other hand, usually just didn't come to work.

The reported data support the contention that women tend to be absent for medical reasons, whereas men are more likely to be absent for disciplinary reasons. Additionally, in the Navy, on a per capita basis, women account for less lost time than men do.

TABLE 17
MANHOURS LOST PER MONTH PER PERSON

	<u>ARMY</u>		<u>NAVY</u>		<u>AIR FORCE</u>	
	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>
AWOL	.18	.08	.44	.15	.02	.01
Returned Deserters	*	*	2.27	.37	.01	.01
Illness and Injury	2.75	6.17	1.49	2.36	1.14	2.75
Abortion	-	**	-	.06	-	.04
Pregnancy	-	3.00	-	.29	-	1.66
Child Care	.11	.21	.34	.39	.09	.16
Alcohol Abuse	.08	.00	.36	.20	.04	.02
Drug Abuse	.03	.01	.05	.02	***	***
Pretrial Confinement	.05	.00	*	*	*	*
<u>Confinement</u>	<u>.11</u>	<u>.03</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>
Total	3.31	9.50	4.96	3.85	1.30	4.66

* Not sampled

** Included with pregnancy

*** Included with alcohol abuse

SOURCE: America's Volunteers, 1978.

However, problems do exist. Hazard [1980a] reports increasing personnel turbulence on the Women in Ships vessels due to pregnancies. A total of 40 of the 357 women assigned to ships in 1979 were transferred ashore due to pregnancy. Table 18 displays 1979 female marriage and pregnancy information.

TABLE 18
MARRIAGE AND PREGNANCY
1979 DATA REGARDING FEMALE MARRIAGE AND PREGNANCY

A. Marriage

- 1,233 women officers are married (28% inventory)
- 607 women officers are married to other military (14% inventory)
- 7,718 enlisted women are married (36% inventory)
- 3,087 enlisted women married to members (40% est.)

B. Pregnancy

	<u>Officer</u> Unknown	<u>Enlisted</u> Approx. 12% inventory
• Incidence: FY 79		
• Attrition due to Pregnancy: FY 79	<1%	4% inventory

SOURCE: Hazard, Women in the Navy, 1980.

The impact of increased pregnancies as the female force expands into nontraditional roles has not been fully determined. As Landrum [1978, p. 693] stated:

While healthy women in traditional roles can continue their normal physical activity during pregnancy, problems relating to size, balance, and environmental hazards in nontraditional jobs are now being encountered. Pregnancies create temporary physical changes and often present emotional

stress to women. Further an unmarried pregnant woman must further examine her ability to continue in the demands of military life--especially when her job requires full-time commitments, such as with academic life, more-than-normal field duty, or time away from home.

6. Training

There are research data that indicate that women who are given proper training do as well as, or better than, men with the same training.

Hoiberg [1978, p. 659-669] explored the performance of men and women assigned to Navy "A" school and their subsequent performance after two years in the fleet. The sample included 340 women and 2987 men that went through San Diego Navy "A" schools between April 1973 and July 1974. The schools included data processor, mess management specialist, personnelman, radioman, and yeoman categories. Follow-up questionnaires, which also gathered supervisor ratings, were collected between July and December 1975.

No significant differences were obtained for final school grade averages except that women received significantly higher average grades in the mess specialist course and performed less well than men in the data processing curriculum (9.8 percent of the women versus 6.3 percent of the men disenrolled). Overall, 7.2 percent of the women did not complete courses whereas 12.7 percent of the men did not finish. Two years after attending "A" school, discharge information was

collected and showed that a higher percentage of women (94.7 percent) than men (78.9 percent) had remained in the service.

The MAXWAC and REFWAC Army studies, previously discussed, also indicated that adequately trained females perform on a par with similarly trained men [DOD Annual Report for FY 80, 1979, p. 303].

An important factor in successful female training appears to be the male-female ratio. Safilios-Rothschild studied the dynamics of male-female interactions during a 1977 Coast Guard Academy cadet training cruise aboard the barque EAGLE. Taking part in the four-day training cruise were 120 first year cadets (including 10 women). For training purposes, the cadets were separated into groups of seven to ten personnel and the policy was for women to be assigned in different numbers to different groups, ranging from 0 to 3 women in a group. Safilios-Rothschild [1978, p. 193-195] concluded that whenever there was only one woman cadet in a training unit, she tended to become a marginal learner due to inability to effectively assimilate into the training group. However, when there were two or more cadets in a group, they tended to be at ease and integrated successfully into the training unit.

Safilios-Rothschild [1978, p. 195] also noted a clear sex-differentiated training pattern exhibited by the instructing upperclassmen during the cruise. First, they would explain the principles and procedures of a task to the men

and women cadets and then the trainers would be required to perform the task described. The instructors would let the men try, fail, and try again until the procedure was correctly accomplished, but they behaved differently toward the female trainees. When the women would try once and fail, the trainer would frequently step in and perform the actual procedures for the women, instead of encouraging the women to complete the task.

This behavior reinforces a socialization process where women are subtly taught to rely on another's help rather than on themselves, and toward avoiding difficult tasks and especially tasks in which they have failed [Safilios-Rothschild, 1979, p. 195].

7. Attitudes and Interpersonal Factors

The evolving status of military women has received considerable attention in the past decade. Concerns that military men seek all-male groups and form bonds (male bonding) that are resistant to female intrusion were prevalent [Thomas, 1978b, p. 308]. While the Commanding Officer quarterly Women in Ships program reports have not supported the male bonding theory [Hazard, 1980a], sexual stereotyping and institutional sexism (prejudice or discrimination against one of the sexes within an institution, either collectively or individually) have become disgruntling issues for women [Coye, 1979, p. 44-49]. As women have become more established and aware of their increasing importance to the Navy, they have become

increasingly assertive in expressing their desires for equal treatment [Coye, 1979, p. 44-45]. Analysis of a recent Navy Personnel Research and Development Center (NPRDC) survey administered by Patricia Thomas to women officers indicated that more women officers in the 1978 survey perceived the existence of institutional sexism than a previous 1972 sample group. Three-fourths of the 102 women surveyed, compared with two-thirds in a 1972 survey, believed they were being held back in their professional development because of ingrained beliefs held by men that women are not capable as managers [Coye, 1979, p. 44].

One positive finding from the Thomas study, notwithstanding the pessimistic feelings about sexism in the Navy, was the fact that 86 percent of the 1978 surveyed officers reported that they would join the Navy again if they had it to do over again. A majority of respondents indicated that, although the situation is not ideal, it is still a much better work environment than that in civilian industry [Coye, 1979, p. 44].

NPRDC has examined the attitudes of male recruits toward women in the Navy. Questionnaires were administered to samples of recruits entering the Navy during 1975, 1976, and 1977 [Thomas, 1979, p. 17]. Table 19 displays some of the results obtained. Contrary to expectations, negative views toward women increased in frequency during the 1975-1977 timeframe. These data suggest why women are becoming

TABLE 19
SEXUAL STEREOTYPING AMONG NAVY RECRUITS

<u>Item</u>	<u>AGREE</u>		
	1975 (N=849)	1976 (N=1163)	1977 (N=1000)
It is unfair to promote on the basis of sex	82%	71%	70%
Training women if often wasteful	8%	14%	15%
Women are out sick more than men	15%	22%	24%
Women have a time of the month when their emotions interfere with their jobs	42%	56%	56%
I would not want to fly in an airplane piloted by a woman	11%	16%	18%

SOURCE: Thomas, Some NPRDC Research on Women in the Navy, 1979

increasingly verbal toward institutional sexism in the Navy [Coye, 1979, p. 44-49].

Thomas [1979, p. 13] presented NPRDC research that compared the attitudes of women in traditional with those of women in nontraditional ratings. Table 20 provides the results. It can be concluded from the data that women in the nontraditional ratings have more pessimistic attitudes toward their job environments than women in traditional ratings.

Interpersonal factors have also played a contributory role in forming attitudes and beliefs. It has only been in the last decade that the presence of women in the military has caused interpersonal conflicts among Navy personnel. Previously, even in wartime, military jobs performed by females paralleled those of their female civilian counterparts, and little role conflict resulted. Now, however, in a structured institution such as the military, males who have never before supervised females performing traditionally masculine tasks waver between attitudes of sexual equality and protectiveness [Thomas, 1978b, p. 313-317]. In addition, women do not necessarily desire the new jobs being thrust upon them and sometimes revert to self-defeating stereotypic behaviors [Thomas, 1978b, p. 313-316]. Peer relationships become less satisfying for women as they advance in their career fields, and they encounter role conflict and increased isolation [Thomas, 1978b, p. 313]. Occasionally, problems

TABLE 20
ATTITUDES OF WOMEN IN TRADITIONAL (N = 205)
& NONTRADITIONAL (N = 77) RATINGS

<u>Question</u>	<u>WOMEN RESPONDING "YES"</u>	
	<u>Traditional Ratings</u>	<u>Nontraditional Ratings</u>
Do male attitudes make your job difficult?	20%	25%
Do wives of coworkers resent you?	39%	62%
Do men resent you for taking their shore billets?	70%	82%
Should women be allowed to go to sea?	80%	92%
Should women serve on ships going into combat?	62%	82%
Are you satisfied with the progress you've made in the Navy?	70%	49%
Does your work give you feelings of self-worth?	57%	68%

SOURCE: Thomas, Some NPRDC Research on Women in the Navy, 1979.

arise from wives' resistance to situations that could threaten their marital relationships [Castle, 1978, p. 26]. Although some of these interpersonal situations can resolve themselves, it behooves the Navy to combat sexism with some of the experience gained in combating racism.

8. Perceptions Held By Navy Wives

Because the opportunity for women to be assigned to sea-going vessels (noncombatant) has only recently become a reality, information regarding the attitude of the Navy spouse toward sexually integrated crews is sparse. Even then, the limited available information addresses only the attitude of the wife of the male sailor and does not consider the husband of the female sailor.

The limited experience of the Women in Ships program tends to indicate that prior to shipboard integration, wives have negative perceptions of females serving aboard ships in which their husbands serve. However, wives' indoctrination briefings, conducted by all ships in the program, are reported as having been successful in reducing anxiety levels [Hazard, 1980a].

Navy Personnel Research and Development Center (NPRDC) researchers [Thomas and Durning, 1980, p. 3-7] surveyed 463 spouses and 400 Navy women to determine if noteworthy opposition to assignment of women onboard ships existed. The results showed that both wives and the female sailors felt that women should be allowed to work at any job for which they are capable.

Interestingly, 30 percent of the Navy women said they would get out of the Navy if females were assigned to ships, whereas only 12 percent of the wives would urge their husbands to leave the service under similar conditions. The results of the survey are displayed in Table 21.

Another NPRDC survey designed to assess role affiliation and attitudes of Navy wives was made onboard USS SAMUEL GOMPERS in March, 1979. During a dependents' cruise, 135 women anonymously completed the survey questionnaire, 99 of the women were married to crewmembers and the remainder were friends. The reaction of respondents did not indicate resistance to assignment of females onboard the ship. NPRDC surveyers concluded that reaction of crewmembers' wives and girlfriends was not a negative consideration in female assignment to ships [NPRDC Letter, Serial 118, 6 March 1980]. The results of the survey are presented in Table 22.

This writer concludes that Navy wives will not be negatively influenced by the Women in Ships program if they are adequately briefed prior to shipboard integration and kept apprised of shipboard functions through such mechanisms as "Familygrams" (locally prepared command sponsored newsletters).

TABLE 21
ATTITUDES OF NAVY WIFE AND MILITARY WOMAN

<u>Question</u>	<u>AGREE</u>	
	<u>WIFE (N = 463)</u>	<u>NAVY WOMAN (N = 400)</u>
Women should be allowed to work at any job for which capable	85%	93%
Most women cannot stand the stress of command	13%	7%
Women should not jeopardize male careers by competing for promotions	6%	4%
If women were assigned to ships, I would (urge my husband to) get out of the Navy	12%	30%
I tend to be contemporary in my role affiliation	51%	64%

SOURCE: Thomas and Dunning, 1980

TABLE 22
USS SAMUEL GOMPERS WIVES SURVEY

Question: How would you feel if your husband. . .	<u>Response</u>			
	OK	Not Like it	Very Negative	Don't Know
Worked daily with women in his rating?	58%	25%	5%	12%
Had to supervise several women?	60%	26%	5%	10%
Had to work for a female supervisor?	60%	20%	5%	14%
Had to stand after-hours watch with a Navy woman?	42%	32%	15%	11%
Were on an unaccompanied tour where Navy women were also assigned?	44%	32%	16%	7%
Were assigned to a ship on which women were serving?	62%	23%	10%	5%

SOURCE: NPRDC Letter, Serial 118, 6 March 1980

V. FUTURE EMPLOYMENT OF WOMEN

Currently, the most debated issue regarding the role of Navy wives is combat service. This is a polarizing issue, not unlike the national debate on the issue of abortion, arousing strong feeling and emotions. This chapter discusses some of the issues surrounding an expansion of the role of women in the Navy.

A. WOMEN IN COMBAT

Title 10 U.S. Code, Section 6015 statutory restrictions prevent women from serving on ships or aircraft that have combat missions. The major reason for this law, as noted by Binkin and Bach [1977, p. 72], is the philosophical objection of the electorate and the political leadership, at the time of enactment, to the assignment of women to combat. This opposition is merely presumed because it has not been fully determined [Segal, 1978, p. 109-117].

Are our attitudes to military employment for females due to societal beliefs that women should not be involved in killing and destruction? Or, are they perhaps due to fears that sexual morality would be compromised when women and men are brought together in combat situations? Or, are we concerned about possible deleterious impacts on the effectiveness of combat units?

Traditionally, men have been the combatants, and women the nurturers of society [Goldman, 1973, p. 137], but these stereotypes of sex roles are being questioned and women are becoming increasingly involved in nontraditional employments. The future role of women in the Navy is no longer clear, because social policy and choices appear to be veering away from the previous traditional aversion to women in combat. A recent Newsweek/Gallup Poll [Newsweek, 18 February 1980, p. 36] conducted 31 January - 1 February 1980 asked the following question: "If women are drafted, should they be required to take combat roles as men are, should they be given combat roles only if they volunteer for them, or should they not eligible for them?" The results, from 560 polled Americans, are tabulated in Table 23.

TABLE 23
COMBAT UTILIZATION OF WOMEN

	<u>All respondents</u>	<u>Men</u>	<u>Women</u>
Given combat roles same as men	10%	12%	9%
Given combat roles only if volunteer	68%	61%	74%
Not eligible	21%	26%	16%

SOURCE: Newsweek, 18 February 1980

It is difficult to accurately assess societal attitudes concerning whether women should be allowed in combat, and,

consequently, the question should be debated in the political arena, where society has a direct influence on policy.

A more pertinent question for military planners is whether women are capable of performing effectively in combat environments. Surely, the Services cannot divorce themselves from the political discussions that would ensue from a debate over full equality in the military for women, but the capability aspect to the issue is paramount since it relates to force effectiveness.

Testing in a simulated combat environment aboard combatants and aircraft is necessary to determine the relationship of attitudinal, physiological, psychological and social factors to female effectiveness in combat. To date, the Navy has been reluctant to move forward in this direction. In March 1980, the Assistant Secretary of the Navy (Manpower, Reserve Affairs, and Logistics) in a memorandum to the Assistant Secretary of Defense stated ". . . testing of women in simulated combat roles or in a combat environment is not considered necessary or advisable. We will, of course, learn a great deal about the performance of women at sea from their exposure aboard noncombatants and temporary duty on combatants" [Doyle, 1980].

This position delays the process of determining the capabilities of women and of determining the potential effects of sexually integrating combat units. Additionally, this position hampers the ability of planners to develop the best

feasible personnel utilization policies. Discussion of pertinent considerations follow in subsequent paragraphs.

1. Attitudinal Considerations

Attitudes and beliefs of the individual supervisors and subordinates impact on the usefulness of women in any field of endeavor, military or civilian. The general increase of women in the labor force and their inroads into traditional male employments has led to a positive change in society's attitudes concerning their capabilities. Examples of women performing satisfactorily in traditional male employments are no longer newsworthy. However, attitudinal changes within the Navy where a closed-male society has mandated and practiced sex-role stereotyping for decades, has evolved more slowly [Thomas, 1978b, p. 310-316].

As previously noted in Chapter IV, Coye [1979, p. 42-45] pointed out that female officers are becoming increasingly pessimistic about male acceptance of females in the Navy. Comparison of surveys made in 1972 and 1978 indicate that the women officers surveyed in 1978 were more assertive than the women surveyed in 1972 in their claims that the male-dominated Navy discriminates against women.

The magnitude and consequences of institutional sexism, prejudice, or discrimination against one of the sexes within the Navy are unknown. Likewise, the consequences of sex-role stereotyping are unknown. However, low female retention rates in the Navy should be reason enough to study the

impact of institutional sexism and sex-role stereotyping on female performance and efficiency.

A Dunning and Mumford Navy study [1976, p. 4-19] indicates that, unlike males, females become more disillusioned with the Navy as they accrue seniority, particularly so at the E-6 petty officer level. The Dunning and Mumford findings included [1976, p. 10-19]:

1. Nonrated women are more positive than nonrated men toward management practices.
2. With increasing exposure to the Navy and work experience in the Navy, women become disproportionately disillusioned concerning peer relationships. On the other hand, a positive trend in peer relationships is reported by men (men of higher pay grades report better peer relationships than do men of lower pay grades).
3. By the E-6 pay grade, women's perceptions of the organization have dropped well below those of men. These women feel more isolated from the work group than the more junior females, while E-6 pay grade men have sense of team solidarity.

Thomas [1978b, p. 314-315] believes that institutional sexism is a major factor in this disillusionment of the E-6 female petty officer. Further, Thomas' observations of the integration of women into formerly all-male work groups led her to conclude that in newly integrated work groups men usually respond to female integration in two ways. First,

they engage in behavior designed to attract the attention of the opposite sex--i.e., they whistle, stare, and make sexist comments. Second, they assume that the women are incompetent [Thomas, 1978b, p. 314]. Thomas identifies these behaviors and attitudes as causes for the disappointing conclusions reached by Dunning and Mumford.

Supervisor, peer, and subordinate attitudes all are important factors in development of cohesive work groups. Elimination of sexism, stereotyping, and discrimination would permit more accurate assessment of the long range impact of mixed gender integration on unit effectiveness.

In the following three sections, this writer intends to discuss physiological, psychological, and social aspects of placing women in combat service. Attitudinal considerations will inherently be a part of these discussions.

2. Physiological Considerations

Physiological differences between men and women, such as body composition, cardiorespiratory factors, and menstrual cycles, have been noted by several researchers, Carreon [1979], Printy [1979], and Ayoub [1979]. However, little is known as to the extent that these differences may influence the woman's capability to perform effectively in combat situations.

Castle [1978, p. 25] noted several physiological differences between the average man and the average woman. These differences include the following:

1. Men have greater lean muscle mass and greater size and

level of strength, thus, performing better than women in situations requiring explosive power.

2. Women have wider and rounder pelvic girdles, softer joints, and softer ligaments, which disadvantage women in running and jumping situations.
3. Women have less bone mass, less muscle component, but more fat, negatively influencing strength, speed, and power.
4. Men have greater potential for endurance than women.
5. Men have greater tolerance to heat than women.
6. Men are superior to women in terms of aerobic capacity.
7. Women will reach exhaustion sooner than men, since they have a lower percentage of oxygen-carrying red blood cells.

Ayoub [1977, p. 1-15] and Robertson's [1979, p. 3-15] research confirms Castle's findings. Additionally, Robertson [1979, p. 9-16] noted possible sex differences in the proportion of body weight that can be repetitively lifted. Based on Snook and Ciriello studies, in a factory environment of males and females lifting typical production type objects from ground level to waist level, Robertson [1979, p. 9] reported that men were able to sustain a lifting capacity of approximately one-third their body weight for 18 hours a day, while women studied varied between a one-sixth to one-third sustained body weight lift capacity.

Robertson [1979, p. 12] also discusses women's strength as a percentage of men's strength. He pointed out that some studies report that women's average upper torso strength is 60 percent of that of men. However, he further pointed out that it can be misleading to accept percentages of average scores, and the importance of, instead, considering the percentage of distribution overlap between men and women's strength differences is paramount [Robertson, 1979, p. 12].

Critics of women in military [Bettle, 1978 and Webb, 1979] claim that all women should be excluded from combat, on the basis of the physiological differences between males and females. Critics fail to realize that there is substantial variation around the average, i.e. average scores are of limited use because there is substantial overlap of the distributions of female and male scores on almost every physical measure [Printy, 1979, p. 56].

Physical stamina for hand-to-hand combat is no longer a prerequisite for most jobs in the Navy in the age of advanced technology. What is required is a defined set of specific job category physical standards which must be met by all personnel intended for employment in that job, e.g., boiler technicians on specific ship types. These standards must be demonstrable, job related standards. They should not be "blanket" male standards [Castle, 1978, p. 26]. Positive steps in this direction in the Navy are occurring as a result of current NPRDC Navy job standards research.

3. Psychological Considerations

Among military commanders, there is a widespread conviction that women are psychologically unsuited for combat, since they are felt to lack aggressiveness and to be more "emotional" than men [U.S. News and World Report, 1980, p. 30]. Few would deny that women and men may be temperamentally different on average, but this does not mean that women would not perform as well as men under stress [Binkin and Bach, 1977, p. 88].

Maccoby and Jacklin [1979, p. 6-12] point out that while males tend to display more aggression than females, there is significant overlap between the sexes for any psychological trait and considering psychological averages of males and females does not provide very meaningful information. Maccoby and Jacklin argue, as does Robertson, that distribution overlaps are more important than "average" comparisons between the sexes. Further they stated that most psychological traits they measured did not show sex differences on the average [Maccoby and Jacklin, 1979, p. 7].

Psychological traits such as aggressiveness, dominance, and moodiness are products of social norms, role expectations, conditioning, stereotyping [Castle, 1978, p. 25-26], as well as of sex hormones [Maccoby and Jacklin, 1979, p. 12-14]. While individuals' scores on psychological traits can sometimes be influenced or changed by societal awareness, there is no

current prescriptive answer to the magnitude or permanence of many psychological sex differences.

(Maccoby and Jacklin [1977, p. 13-17] have presented data contending that many men, nearly 50 percent, may cycle through "monthly" mood depressions due to fluctuating testosterone levels. Additionally, they argue that these male mood depressions are more significant than female mood fluctuations (due to menstruation) because there are no detectable signs, to the male, of the testosterone fluctuations, i.e., he doesn't know to what to attribute his moods.)

Thus, to evaluate accurately the effectiveness of women in combat roles, women should be utilized in combat simulation exercises, so that the effects of sex differences can be accurately determined. Without such testing, conclusions regarding womens' performance in combat are unreliable.

The ability fo 15,000 members of the Women Army Corps (WAC) to withstand the stresses of war, while serving overseas in WW II, should not be overlooked in this discussion of how well females would perform in combat. In combat support environments, WAC's incurred the same casualty rates as men in noncombatant positions, however, their rates of psychological disorders were lower [Thomas, 1978a, p. 43].

The debate over the psychological characteristics of women, e.g. their ability to cope with stress, has generated an emotionalism of its own, more or less unsupported by required factual data.

4. Social Considerations

The combat readiness of a naval vessel is, among other things, contingent on group relations and group effectiveness. Leadership efforts, training, and communications are involved in transforming groups of dissimilar individuals into cohesive fighting units. In wartime, the most essential goals of a group are the accomplishment of the unit's mission and the survival of the group. Group survival is dependent upon each member's competent performance of his job and the awareness of the all group members of this mutual dependency [Hoiberg, 1980, p. 36].

With the introduction of women into the military, into units previously dominated by men, concern over women's impact on group behavior increased. Critics of women in combat argue that men tend to draw together in social groups from which women are excluded. This is particularly true, Tiger [1969, p. 70-83] contends, in matters involving the control of interferences to social order, such as politics, war, and police work. Tiger's [1969, p. 84-85] views include the following:

- (1) that defence and maintaining the social order are clearly crucial to the persistence of human social systems;
- (2) these behaviors are typically undertaken by males, usually without female full colleagues. . .
- (3) that on all occasions defined by a community as vitally important and during which strong emotion is experienced by community members aware of the overall situation a male or males will assume the most significant roles.

Admiral Worth Bagley advocated this male bonding theory in testimony before the House Armed Services Committee in 1975. His comments included the following [Binkin and Bach, 1977, p. 91]:

Since the inception of the Continental Navy, later the U.S. Navy, traditional male domination of warfare and seafaring has continued. Only recently has there been pressure for change. The naval profession--specifically the business of going to sea--has been advertised as, and accepted as, a closed club for men.

The present male-dominated, sea-going facet of Navy life is one that is understood and accepted by the country and the men in the Navy. Men join the Navy because they enjoy being in a job which has been historically associated with fellowship among men in a difficult and dangerous endeavor. Changing the fabric of the Navy by integrating women into all combat roles might well reduce the attractions of the Navy to this segment of mankind, as well as to some of those men who might, in the future, join the Navy and make it a career.

Several researchers [Moskos, 1975, and Savage and Gabriel, 1976] have concluded, from studies of ground combat units in the Vietnam War, that the extent of cohesion and effectiveness in small groups was dependent upon the following essential elements: (1) the individual characteristics, skills, and efforts of group members and leaders; (2) awareness of risk to the group; and (3) a common goal or mission. However, very little is known about the effects of combining men and women in a combat environment. The Women in Ships program quarterly evaluations [Hazzard, 1980b] suggest that the male bonding phenomenon is not occurring, however, the combat environment is not present.

Collins' [1979, p. 15-21] discussion of the interaction of mixed gender groups suggested that utilization of women in

in combat related, nontraditional jobs may result in serious problems at the operational level as well as personal problems for those women involved. Collins [1979, p. 14-20], using Commander Doris Vail's doctoral dissertation findings for mixed gender groups, reported the following:

1. Women in nontraditional jobs are crossing cultural norms concerning the role of women at work, and this may create high levels of anxiety for women and hostility by men toward the women, thus harming peer and supervisory relationships.
2. Women attach more importance to working conditions than men do. Thus, it is very possible that women would sometimes find working conditions too unpleasant to make the kind of commitments to the organization necessary for high productivity.
3. Women are reluctant to accept leadership of mixed groups, making it unlikely that the Navy will find mixed groups as effective as single sex groups.

Despite Collins' pessimistic outlook concerning successful mixed gender integration, he advocates devoting immediate attention to obtaining more valid and reliable information concerning the pros and cons of mixed gender groups.

B. EQUALITY

While this thesis addresses the women in combat issue as a potential capability and not an equality question, there are

several policies regarding utilization of female, especially officers, that are discriminatory and require revision to ensure equality.

The Women in the Navy Information Book [1979, p. 17-25] discusses the differential treatment of female officers and enlisted, compared to their male counterparts, and cites the following:

1. Staff corps women in the Supply, Chaplain, and Civil Engineer Corps compete only among their female officer peers. Staff corps women in the Medical Service and Judge Advocate General's Corps, on the other hand, compete with their male peers for promotion. Additionally, unrestricted and restricted line women officers are considered for promotion by the same board, which is not the case with male promotions.
2. Women officers are appointed, vice promoted, to flag rank, and the appointment is only effective for that tour of duty. Male officers are promoted to flag rank.
3. Eligibility for promotion is different for male and female officers. The service-in-grade requirements for males are covered by Title 10 U.S. Code, Section 5751, and the requirements for women are delineated in Title 10, U.S. Code, Section 5752.
4. Women promoted to the grades of lieutenant through captain receive permanent promotions where males receive temporary promotions.

5. Entrance requirements are different for female enlisted personnel. Whereas males are not required to have high school diplomas or GED certificates, females must have high school diplomas or GED certificates and be "School Eligible."

Legislation before Congress, the Defense Office Personnel Management Act (DOPMA), would obviate the inequitable selection and promotion policies for female officers. However, this legislation has been in Congress three times since 1973 and the likelihood for near-term passage is unknown [Hansell, 1979, p. 11].

As more and more females join the Navy, the issues of equality and consistent policies will continue to increase in importance. The Navy's policy is clearly defined in the Equal Opportunity Manual, OPNAV Instruction 53.54.1A (1978) which states: "Race, color, creed, sex and national origin are not factors in determining the worth of an individual to the Navy, and therefore, shall not be factors in determining how an individual is to be treated."

Because DOPMA passage is uncertain, the Navy should prepare and initiate legislative proposals to correct existing promotion and selection inequities so as to be consistent with its own stated policy. The Naval Equal Opportunity Manual supports this position with the statement [OPNAV Instruction 5354.1A, 1978, p. II-7]: "Women in the Navy are to be accorded equal opportunity in all aspects of this instruction except

where constrained by law from serving at sea and by DOD
policy from duties which are or can become combat associated."

VI. CONCLUSIONS AND RECOMMENDATIONS

In this thesis the history of utilization of women in the Navy was examined. This writer has concluded, that based on higher recruiting standards for female enlisted members, the increased proportion of the force that is female has enhanced the overall quality (in terms of years of education and mental test scores) of the personnel in the All-Volunteer Force. Reports from the major Navy shipboard integration programs (SANCTUARY and Women in Ships program) have reduced concerns over the ability of women to serve successfully at sea, and also indicated that with adequate training, the performance of women in certain ratings is comparable to, if not greater than, that of men in a noncombatant environment. Women have contributed to the force by raising the mean level of education and general aptitude, while having lower rates of unauthorized absences, desertions, and other disciplinary problems than do men. In general, this writer concludes that the increased role of women in the Navy, within the all-volunteer structure, has been beneficial for the Navy. Additionally, the intended expansion of women's employment to 45,000 enlisted and 5,000 officers is necessary for the Navy, in order to ease male sea requirements and to cope with shortages of recruitable males. The expansion, however should be phased more carefully and deliberately than currently planned due to female petty officer retention problems.

Consideration of additional expansion beyond that planned for FY 85 would be precipitous until full evaluation of the Women in Ships program occurs. As survey results discussed in Chapter IV report, organizational problems exist, in addition to obstacles resulting from institutional sexism, and traditional role models, that require attention before additional numbers of females should be considered for employment.

Increased recruiting, plus the liberalization of policies and legislation concerning marriage, pregnancy, and shipboard duty on noncombatants; and fewer constraints on ceilings and promotions, have resulted in a growth in the number of women in the Navy. But this surge of female personnel has created a situation in which nearly 96% of Navy enlisted women are distributed in the lower five pay grades (see Table 10). Resultingly, lack of women leaders and role-models in the officer and upper enlisted ranks neither makes available peer support nor creates job situations into which female recruits can easily be assimilated [Landrum 1978, p. 690].

While women have performed satisfactorily, recent lower enlisted retention rates for women are a cause for concern. It is this writer's conclusion that the recent increase in women joining the Navy has created a vastly disproportionate junior force, resulting in organizational assimilation problems for females and attitude adjustment problems for their male counterparts.

The subsequent recommendations are provided based on the analysis presented in earlier sections of this thesis.

It is recommended that job selection for females receive more attention. This selection should match the female's desires with a compatible job and ensure that the female actually works in the job for which she is trained.

The matching of jobs with mental aptitudes and interests should start with the Navy recruiter. Since women tend to be more interested in joining the traditionally female military ratings, the recruiter has to be careful not to flood the recruit training commands with an influx of females seeking traditional jobs. It is this writer's hypothesis, developed during informal conversations related to this thesis, that recruiters are so taxed in their ability to provide male recruits for technical subspecialties that they do not have time to properly match a female recruit's desires and capabilities with Navy needs. Hence, the preponderance of female recruits seek more traditional jobs.

It is also recommended that the Navy develop job standards for measuring the ability of personnel to satisfy strength, stamina, and other performance requirements. Without adequate job standards, effective utilization and performance of personnel, either men or women, cannot be attained. Improved psychological standards and testing would also aid in recruit placement.

The Navy should carefully monitor DOPMA progress and be prepared to introduce immediately legislation before Congress, eliminating differences between the selection and promotion processes for men and women officers, in the event that DOPMA legislation remains at a standstill.

Further study is recommended to determine causality for the decreasing first term enlisted retention rates, 25 percent in FY 79 versus 43.4 percent in FY 76. This information is critical for effective utilization planning for women. Are women joining the service for a four year adventure, and subsequently departing the Navy, or are they departing due to inequities that limit their opportunities for professional growth?

Additionally, the effects of the decreasing retention of females should be studied from the perspective of future impact on accession requirements. While the supply of women, thus far, has exceeded the demand, if retention rates remain very low, female supply problems may arise. Manpower modeling is recommended to study the effects of various retention and attrition rates on planned accession requirements for women.

The MAXWAC and REFWAC exercises and Hoiberg studies indicate that, given comparable training, women perform at least as adequately as men in field combat support and training environments. It is recommended that detailors and planners ensure that women receive the same training as men performing the same jobs. Unit Commanding Officers should ensure that

women be required to meet the same performance standards as men.

This thesis research indicates that sexism is handicapping women in primary group interaction. The continued commitment of all echelons of the Navy organization is necessary to continue to bring about effective changes in behavior and attitudes of men regarding the role of women in the Navy. For women to be maximally effective in the Navy, sexism and stereotyping must be eliminated. Elimination of sexist practices is necessary for a healthy command working environment in which all sailors can perform to their capacity.

The final recommendations of this thesis concern the utilization of women in combat. First, it is recommended that Title 10, U.S. Code, Section 6015, be repealed. The removal of this statutory restriction does not automatically mean that women would be allowed into combat related duties. It means that the Service Secretaries would set policy for their services, with concurrence from the Secretary of Defense.

Secondly, it is recommended, based on repeal of 10 U.S.C. 6015, that the Secretary of the Navy cautiously integrate selected numbers of women aboard combatants. This should be Navy policy unless society decides women should not be allowed to serve in combat, and the Navy determines that sexually integrated units are not effective in a combat environment.

The Navy should take quick and positive steps to answer, to the maximum extent possible, the "capability" aspect of

women and mixed gender units in combat. It may, in fact, be the case, from attitudinal, physiological, psychological or social perspectives, women should not be allowed in combat due to reduced military effectiveness. But with the data currently available, this point is only conjecture and it is an abridgement of women's rights to eliminate them from the combat environment without amply substantiated data. On the other hand, while providing equal opportunity, the Navy may incur an unacceptable risk of reducing combat effectiveness.

Therefore, this writer recommends that women be included in combat environment testing aboard combatants and aircraft involved in simulated combat training. This should be done to understand better mixed-sex attitudinal, physiological, psychological, and social responses to war.

Four or five years of experience with the Women in Ships program will clarify some of the capability questions related to utilization of women. However, many of the combat related issues will still be open to conjecture unless a concurrent simulated combat environment testing program for women is undertaken.

If society approves of allowing women to serve in combat roles, they will be assigned by the Navy to combat positions in the same manner as are men. If, as some people believe, women in the military do not want combat related jobs, this issue should be a part of a national debate. The Navy should prepared to answer the capability aspect of the women in combat

question; and thus be in a position to execute an integration manning plan if society approves the usage of women in combat.

In conclusion, it is this writer's opinion that the current ceiling of 45,000 enlisted females and 5,000 women officers should remain in effect until longer term data become available regarding the Women in Ships program. In the interim, policies and legislation should be frequently reviewed to ensure equal treatment for both men and women. Additionally, the state of knowledge concerning the combat capability issues should be addressed.

The increased utilization of women has been an excellent investment in terms of bolstering Navy manpower strengths. Women have become very important manpower assets--approximately nine percent of the active Navy force by 1985. However, decreasing female reenlistment rates are worrisome. Identification and correction of the problems causing faltering female retention are essential if military readiness is to be maintained.

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